AYDIN COMPUTER AND MONITOR Division
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ME-12161
Bk. 2 of 3

ADDENDUM

TO

OPERATION AND MAINTENANCE MANUAL

for

DATA TRANSMISSION TEST SET

MODEL 604MI

P/N 356-0021-507

298-0948

March, 1990

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SECTION 1

INTRODUCTION

1.0 GENERAL

This addendum applies only to the Model 604MI-901 unit with part number 356-0021-507. This addendum should be used in conjunction with the Model 604MI basic Operation and Maintenance manual 298-0798 to obtain all information relative to the unit. Table 1-1 is a list of the items supplied with the Model 604MI-901.

Table 1-1. Equipment Supplied

Nomenclature	Part Number
Model 604MI-901 DTTS	356-0021-507
Operation & Maintenance Manual	298-0798
Manual Addendum	298-0948
Accessory Kit	354-0205-501

1.1 DESCRIPTION

The major difference between this unit (356-0021-507) and the Model 604MI (356-0021-506) is the ability to permit measurement of time intervals between data transmit and data receive pulses by means of an external counter. The following changes pertain to Model 604MI-901, 356-0021-507:

Table 1-2. DTTS 604MI-901 Rear Panel

Reference	Function
J11 (BNC)	Time Interval Data Transmit
J12 (BNC)	Time Interval Data Receive

NOTE: All other rear panel connectors are as specified in the Basic manual; see Table 2-1 of 298-0798.

The transmit pattern sync detector (time interval data transmit) consists of counters U128 and U155, flip-flops U101-6 and U87-5 and associated logic gates. Counters U128 and U155 are program-dependent on the MODE setup bits. Gate U102 and flip-flop U101-6 form a carry look-ahead circuit where U101-6 will go high whenever the maximum count is reached. In the WORD mode, the U101-6 signal through U127 presets the counters so that a cycle at the word length occurs. The output of U101-6 toggles U87-5 for each pattern cycle. The output of U87-5 is the pattern start pulse and is one clock cycle long. Buffer U173-13 provides a 50-ohm TTL output for the transmit pattern sync signal at the recording interface provided on the rear panel at BNC jack J11.

The receive pattern sync detector (time interval data receive) consists of counters U129 and U156, flip-flops U87, U73 and U101, selection gates U57 and U58, and associated logic gates. Operation is similar to the transmit circuit, except an advanced pattern sequence relative to the reference generator is used for pseudorandom patterns. Depending on the setting of the MODE switch, various taps from the reference generator are selected by U57 and U58 and modulo-two summed in U100. At U100-8, the longest block of zeros in the

pseudorandom pattern sequences will end two bits before the start of the same block at the reference generator output at U76-8 on sheet 18. The reference generator output corresponds to the input data signal at U76-6. For each output of the pattern sync detector at U101-8, U87-5 will toggle. The transmitted pattern sync pulse is buffered by U173 to provide a 50-ohm TTL recording interface output at rear panel BNC jack J12. Delay calibration is performed by making a direct connection between the transmitter output and the receiver input. The delay will not vary with time or temperature by more than a few nanoseconds.

SECTION 2

PARTS LISTS AND DRAWINGS

2.1 GENERAL

This section contains the parts lists, assembly drawings, and schematics relevant to the Model 604MI-901. All remaining parts lists and drawings can be found in Section 6 of the basic manual 298-0798. Table 2-1 lists all relevant drawings.

Table 2-1. Parts Lists and Drawings

Nomenclature	Drawing Number
Model 604MI-901 Top Assembly	356-0021-507
PC Card Type GP036, Parts List and Assembly Drawing	460-2199-501
Schematic	600-0565

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
–	RELEASED	1/5/90	J.R.Newby

		CONTRACT NO.	AYDIN COMPUTER AND MONITOR Division 700 DRESHER ROAD HORSHAM, PA 19044
		DRAWN C.GWYNN DATE 89-12-27	
		CHECKED J.R.Newby 1/5/90	DATA TRANSMISSION TEST SET TOP ASSEMBLY MODEL 604M-I-901
		DRAFTING C.K.Kotler 90-1-9	
	6848	APPROVED ENGR J.R.N 1/5/90	SIZE A | CAGE CODE 20747 | DWG NO PL 356-0021-501 | REV –
NEXT ASSY	USED ON	APPROVED MFG V.Oddy 1-9-90	
APPLICATION		APPROVED QA M.Miller 1-12-90	SCALE – | SHEET 1 OF 2

800-0015E

LIST / CHECK	DESIGN ACTIVITY IDENTIFICATION — INTERNAL USE ONLY — 11:21:25 05 JAN 1990	CONTRACT NO.	CAGE CODE: 20747	PL356-0021-507	REV: 2

LIST TITLE	SUBCONTRACT NO.		SHEET NO.
MODEL 604M-I-901			2

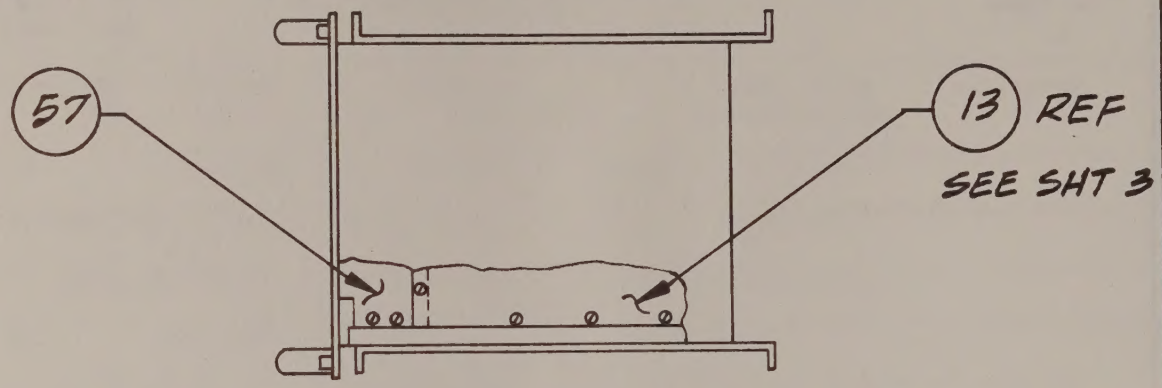
FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
011	1	EA		111-239-002	111-239-002	LABL ADH BLK W/SIL	
013	1	EA	20747	460-2199-501	460-2199-501	GP036-1 CARD ASSY	
023	1	EA	20747	355-0017-504	355-0017-504	CHASSIS ASSY 604M-I	
037	1	EA		298-0798	298-0798	MANUAL 604MI	
046	1	EA	20747	354-0205-501	354-0205-501	LIST OF ACCESS 604MI	
052	1	EA	20747	177-0066-001	177-0066-001	MODIF SLIDE ASSY	
057	1	EA	20747	460-2064-501	460-2064-501	DCR003-1	A1
059	1	EA		400-1992-001	400-1992-001	INSULATOR/SHIELD	
070	1	EA		118-050-502	883	TERM 90 IP .250 MLE	
072	9	EA	96906	127-109-017	MS51957-17	SCR PAN HD 4-40X1\2	
074	9	EA		128-055-4008	SRS4-2-01	SPCR RET'NG 1/8"HIGH	
075	9	EA		128-115-001	#4(#3,#5&1/8)	WASHER LOCK NYLON #4	
080	9	EA	96906	129-009-0244	MS35649-244	NUT PLAIN HEX 4-40	
				ID 353-0071		INSTALLATION DIAGRAM - RACK MTG	
				AT 297-1319		ACCEPTANCE TEST PROCEDURE - ATP MODEL 604M-1-901	
				IM 298-0948		INSTRUCTION MANUAL - ADDEN MODEL 604MI-901	

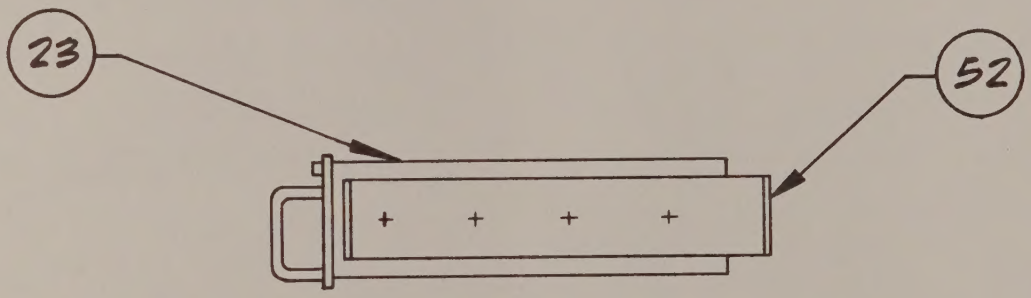
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
–	RELEASED	1/5/90	J Rikewby

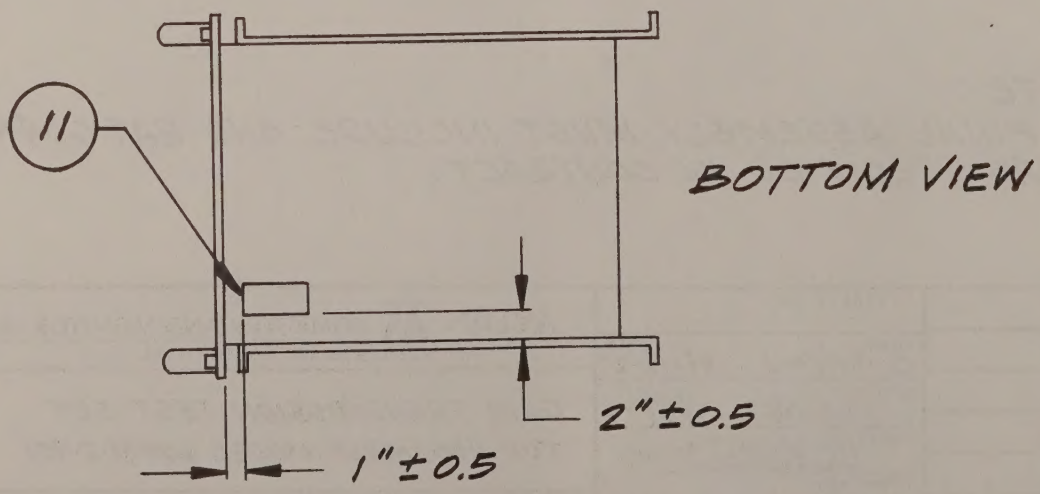
NOTE:
FINAL ASSEMBLY MUST INCLUDE ONE RAT 604M-I
AS SPECIFIED IN CONTRACT.

		CONTRACT NO.	AYDIN COMPUTER AND MONITOR Division 700 DRESHER ROAD HORSHAM, PA 19044
		DRAWN C. GWYNN DATE 89-12-27	
		CHECKED J Rikewby 1/5/90	DATA TRANSMISSION TEST SET TOP ASSEMBLY MODEL 604M-I-901
		DRAFTING [illegible] 90-1-9	
	6848	APPROVED ENGR J Rikewby 1/5/90	SIZE A / CAGE CODE 20747 / DWG NO AD 356-0021-507 / REV –
NEXT ASSY	USED ON	APPROVED MFG V. Polak 1-9-90	
APPLICATION		APPROVED QA [illegible] 1-12-90	SCALE — / SHEET 1 OF 4

800-0015E



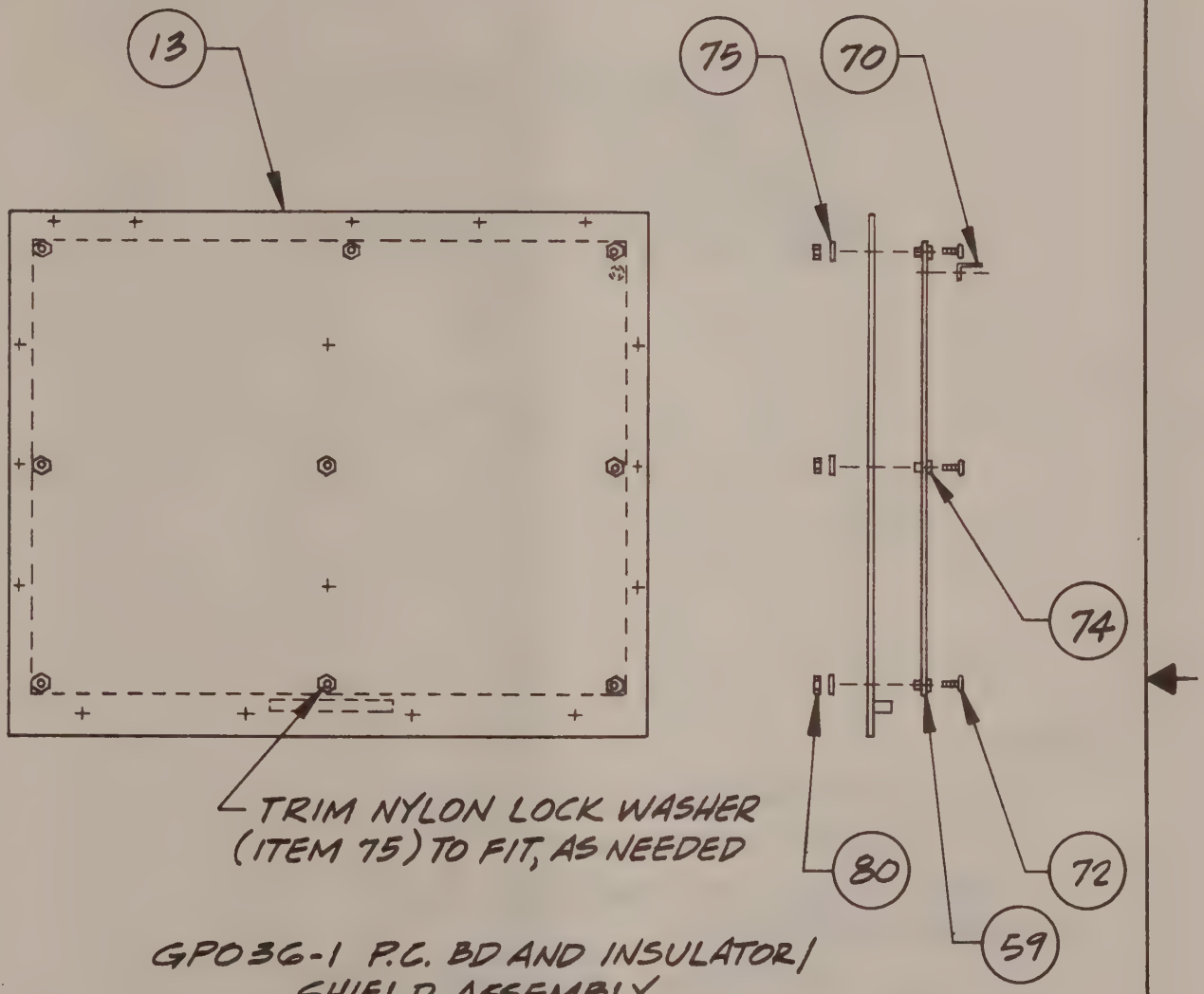




SIZE	CAGE CODE	DWG NO	REV
A	20747	356-0021-507	—
SCALE —		SHEET 2	

800-01888

SEE NOTE 1



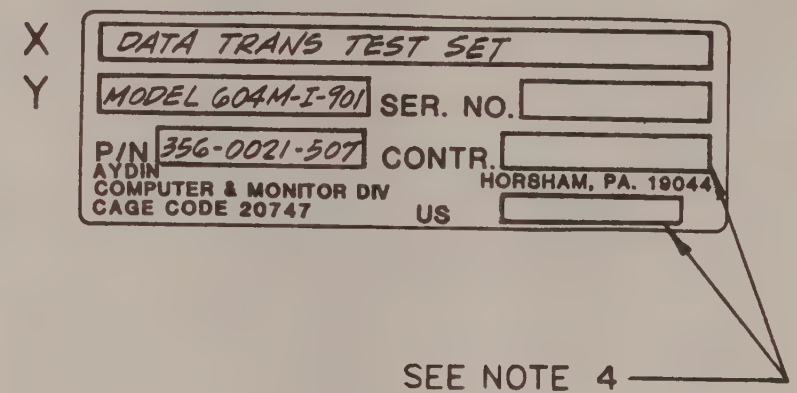
GP036-1 P.C. BD AND INSULATOR/ SHIELD ASSEMBLY

NOTES:

1. SOLDER ITEM 70 TO ITEM 59. ORIENTATION DOES NOT EFFECT THE FORM, FIT OR FUNCTION OF THE UNIT.

SIZE	CAGE CODE	DWG NO	REV
A	20747	356-0021-507	–
SCALE —		SHEET 3	

800-0188



NOTES:

1. ALL CHARACTERS SHALL BE TYPED.
2. 20 MAXIMUM CHARACTERS FOR X Y.
3. SERIAL NUMBER ASSIGNED PER MASTER AUTHORIZATION.
4. DATE OF MANUFACTURE, CONTRACT NUMBER, OR OTHER DATA ASSIGNED BY MASTER AUTHORIZATION.
5. MARK COMPLETE PART NO. AND LATEST REV. LEVEL.

(MADE FROM 111-239-002)

SIZE	CAGE CODE	DWG NO	REV
A	20747	356-0021-507	—
SCALE —		SHEET 4 OF 4	

800-0847 B

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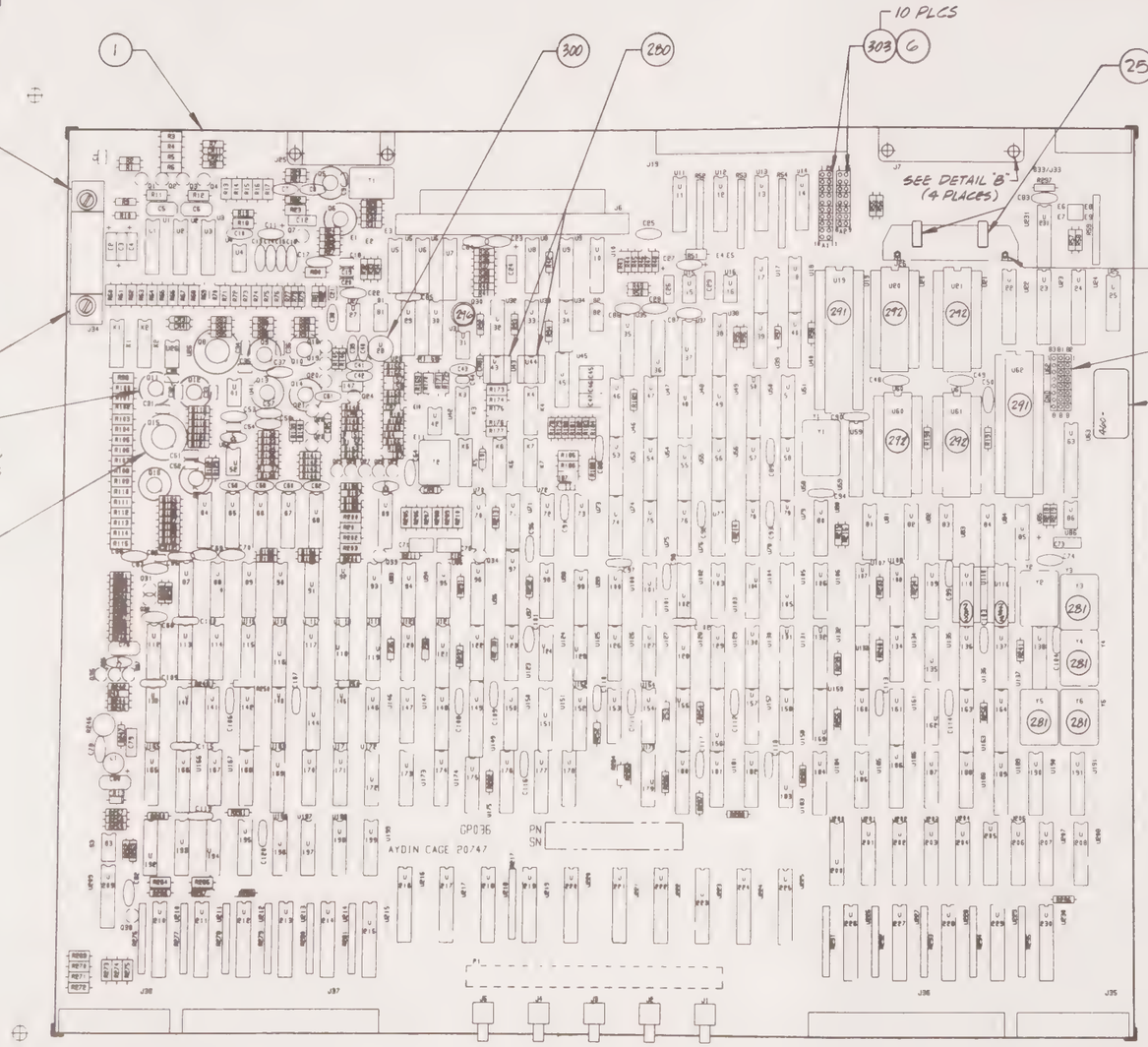
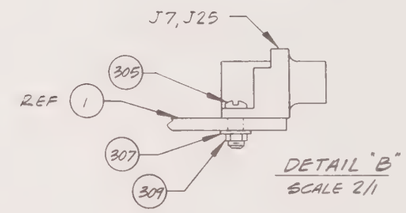
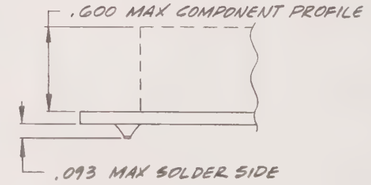
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	—	RELEASED		
	A	REV PER ECO 18931 T.N 1-24-90	1/31/90	
	B	REV PER ECO 19173 A.A.	3/8/90	







NOTES:
1. FOR GENERAL MANUFACTURING AND ENGINEERING NOTES SEE ACMD WORKMANSHIP STD 250-0000-319.

AYDIN COMPUTER AND MONITOR DIV.
GP036
400-2088-001 (-)
SILKSCREEN

STAR DESIGN FILE NO. 4729 11/15/89

FOR SCHEMATICS SEE SD600-0565
FOR PARTS LIST SEE PL460-2199-501

DRAWN C. GWYNN	DATE 89-11-17	AYDIN COMPUTER AND MONITOR Division, 700 DRESHER ROAD HORSHAM, PA 19044
CHECKED	11/20/89	
DRAFTING	89-11-20	CARD ASSEMBLY GP036
ENGINEER	11/21/89	
MFG	11/23/89	
APPROVED QA	12/8/89	SIZE D, CODE IDENT NO. 20747, AD460-2199-501, REV B
APPROVED PROG APPVL	12/8/89	SCALE 1/1, SHEET 1 OF 1
NEXT ASSY USED ON	6848	
APPLICATION		

900-0664-28

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
-	RELEASED	11/25/89	[illegible]
A	REVISED PER ECO 19173 +f	3/12/91	[illegible]

		CONTRACT NO.	AYDIN COMPUTER AND MONITOR Division 700 DRESHER ROAD HORSHAM, PA 19044
		DRAWN L. Wowk DATE 11/17/89	
		CHECKED [illegible] 11/20/89	PARTS LIST GP036 CARD ASSY
		DRAFTING [illegible] 7-11-20	
		APPROVED ENG [illegible]	
	6848	APPROVED MFG V. Polsky 12-13-89	SIZE A / CAGE CODE 20747 / DWG NO PL460-2199-501 / REV A
NEXT ASSY	USED ON	APPROVED QA [illegible] 11/20/89	
APPLICATION		SCALE NONE	SHEET 1 OF 13

800-0015E

PARTS LIST	DESIGN ACTIVITY IDENTIFICATION: AYDIN COMPUTER AND MONITOR DIVISION, HORSHAM, PA. 19044	CONTRACT NO. 9904	CAGE CODE 20747	PL460-2199-501	REV A

LIST TITLE	SUBCONTRACT NO.	SHEET NO.
GP036-1 CARD ASSY		2

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
001	1	EA		400-2088	400-2088	PWB GP036	
006	2	EA		108-720-005	68002-136	HDR 1RW 36P 1/8 PC	A1A2 B1B2B3
007	57	EA	04222	102-470-103	SR215C103KAA	CAP .01UF 50V 10%	C1 C13 C18 C19 C20 C21 C30 C31 C32 C33 C34 C35 C36 C39 C51 C52 C54 C57 C65 C70 C84 C85 C86 C87 C88 C89 C90 C91 C92 C93 C94 C95 C96 C97 C98 C99 C100 C101 C102 C103 C104 C105 C106 C107 C108 C109 C110 C111 C112 C113 C114 C115 C116 C117 C118 C119 C120
008	7	EA	56289	102-305-225	150D225X0020A2	CAP 2.2UF 20V 20%	C2 C3 C4 C12 C26 C29 C79
009	2	EA	84171	102-101-181	DM15181J	MICA 180 PF 500V 5%	C5 C6
010	38	EA	04222	102-469-104	SR215C104KAA	CAP .1UF 50V 20%	C7 C8 C10 C11 C14 C15 C16 C17 C22 C23 C25 C27 C28 C37 C38 C40 C41 C42 C48 C49 C50 C53 C55 C56 C58 C59 C60 C61 C62 C63 C64 C67 C68 C69 C74 C77 C78 C82
011	1	EA	71590	102-432-001	CZ40C225M	CAP 2.2UF 50V 20%	C83
012	2	EA	71590	102-419-104	CK06BX104M	CAP .1UF 100V 20%	C9 C43
013	2	EA	56289	102-306-475	150D475X0010A2	CAP 4.7UF 10V 20%	C24 C73
014	1	EA		102-419-473	200-100-Z5U-473M	CAP .047UF 100V 20%	C44
015	3	EA	84171	102-109-070	DM10070D	CAP 7PF 500V 5%	C45 C46 C47
016	1	EA	71590	102-418-102	CW15A102K	CAP 1000PF 100V 10%	C66

PARTS LIST	DESIGN ACTIVITY IDENTIFICATION: AYDIN COMPUTER AND MONITOR DIVISION, HORSHAM, PA. 19044	CONTRACT NO.: 9904	CAGE CODE: 20747	PL460-2199-501	REV: A

LIST TITLE	SUBCONTRACT NO.		SHEET NO.
GP036-1 CARD ASSY			3

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
017	2	EA	81349	102-109-470	DM10470J	CAP 47PF 500V 5%	C71 C72
018	1	EA	84171	102-101-910	DM15910J	MICA 91 PF 500V 5%	C76
019	1	EA		102-116-681	CD15FC681G03	MICA 680 PF 100V 2%	C80
020	10	EA	07263	104-503-012	1N4448	DIODE SIG MINIATURE	CR1 CR2 CR3 CR4 CR6 CR7 CR8 CR9 CR10 CR11
021	1	EA	04713	104-056-113	1N754A	DIODE ZENER CASE 51	CR5
022	2	EA	28480	104-528-001	HSCH-1001	DIODE BARRIER	CR12 CR13
024	4	EA		118-008-012	8150-6P17	TERMINAL PIN	E6 E7 E8 E9
025	2	EA	75037	108-252-100	3518	CONN HEADER KEY	
026	5	EA	98291	108-329-003	50-053-0000	CONN RECEP R A 50 OHM	J1 J2 J3 J4 J5
028	1	EA		108-553-525	745783-6	SUB"D" 25POS RA SHLD	J7
029	1	EA		108-553-515	745782-6	SUB"D" 15POS RA SHLD	J25
030	1	EA		108-253-124	102322-5	HDR IDC W/LTCH 24 PN	J26
031	1	EA		108-556-116	501-1617-ES	HDR RA SIDE EJCT 16P	S33/J33
032	1	EA		119-034-506	SSB4B06SNN	TERM BLK HI-DEN 6POS	J34
033	1	EA		119-034-901	ECL	PIN LTCH LEFT SIDE	
034	1	EA		119-034-902	ECR	PIN LTCH RIGHT SIDE	
035	2	EA		108-556-126	501-2617-ES	HDR RA SIDE EJCT 26P	J35 J38
036	4	EA		108-556-150	501-5017-ES	HDR RA SIDE EJCT 50P	J6 J19 J36 J37
038	7	EA	94696	106-058-020	W171DIP-2	RELAY REED SPST 5V	K1 K2 K3 K4 K5 K6 K7
040	1	EA	72259	135-108-150	WEE-V-L-15	INDUCTOR ADJ 15 UH	L1
042	1	EA		108-417-772	SSW-136-02-G-D	CONN VERT DBL RW 72P	P1
044	17	EA	81349	103-308-001	2N3906	TRANS SIL PNP TO-92	Q1 Q2 Q3 Q4 Q7 Q20 Q23 Q25 Q26 Q27 Q28 Q29 Q31 Q32 Q33 Q34 Q35

PARTS LIST	DESIGN ACTIVITY IDENTIFICATION AYDIN COMPUTER AND MONITOR DIVISION HORSHAM, PA. 19044	CONTRACT NO. 9904	CAGE CODE 20747	PL460-2199-501	REV A

LIST TITLE	SUBCONTRACT NO.		SHEET NO.
GP036-1 CARD ASSY			4

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
045	6	EA	07263	103-351-002	2N3013	TRANS SIL NPN TO-18	Q5 Q6 Q9 Q10 Q16 Q17
046	2	EA	81349	103-419-002	JAN2N2219	TRANS SIL NPN TO-5	Q8 Q15
048	4	EA	81349	103-314-004	JAN2N2907	TRANS SIL PNP TO-18	Q11 Q12 Q13 Q14
049	5	EA	07263	103-438-001	2N5771	TRANS UHS PNP TO-92	Q18 Q19 Q21 Q22 Q36
050	2	EA	03508	103-319-004	2N3904	TRANS SIL NPN TO-92	Q24 Q38
051	1	EA		103-674-001	VN1204N2	FET MOX PWR 40V TO39	Q30
053	1	EA	01295	103-323-001	2N5245	TRANS N-CHAN FET	Q37
055	38	EA	91637	100-037-101	CCF-07-101-J	MTFLM 100 OHM .25W 5%	R1 R25 R26 R43 R45 R47 R77 R82 R124 R136 R139 R141 R142 R144 R145 R146 R150 R151 R153 R155 R156 R158 R160 R163 R164 R192 R193 R194 R195 R197 R198 R199 R221 R225 R227 R242 R244 R247
057	19	EA	75042	100-037-102	RG1/4-1K-5%	MTFLM 1K .25W 5%	R2 R9 R27 R78 R79 R81 R84 R85 R116 R119 R122 R123 R134 R152 R179 R181 R184 R196 R257
058	1	EA	81349	100-255-1650	RNC55H1650F	MTFLM 165 OHM .1W 1%	R3
059	2	EA	81349	100-255-2940	RNC55H2940F	MTFLM 294 OHM .1W 1%	R4 R5
060	1	EA	81349	100-255-1580	RNC55H1580F	MTFLM 158 OHM .1W 1%	R6
062	8	EA	91637	100-037-470	CCF-07-470-J	MTFLM 47 OHM .25W 5%	R7 R8 R28 R29 R87 R88 R118 R121

PARTS LIST	DESIGN ACTIVITY IDENTIFICATION: AYDIN COMPUTER AND MONITOR DIVISION, HORSHAM, PA. 19044	CONTRACT NO. 9904	CAGE CODE 20747	PL460-2199-501	REV A
LIST TITLE: GP036-1 CARD ASSY		SUBCONTRACT NO.			SHEET NO. 5

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
063	12	EA	91637	100-037-222	CCF-07-222-J	MTFLM 2.2K .25W 5%	R10 R92 R94 R167 R204 R211 R212 R213 R224 R228 R229 R275
065	2	EA	81349	100-215-4420	RN55D4420F	MTFLM 442 OHM.125W 1%	R11 R12
067	6	EA	81349	100-255-1002	RNC55H1002F	MTFLM 10K .1W 1%	R13 R16 R51 R73 R104 R269
068	1	EA	81349	100-255-4752	RNC55H4752F	MTFLM 47.5K .1W 1%	R14
070	2	EA	81349	100-255-4991	RNC55H4991F	MTFLM 4.99K .1W 1%	R15 R170
071	1	EA	81349	100-255-3012	RNC55H3012F	MTFLM 30.1K .1W 1%	R17
072	1	EA	81349	100-215-7502	RN55D7502F	MTFLM 75K .125W 1%	R18
074	2	EA	91637	100-037-242	CCF-07-242-J	MTFLM 2.4K .25W 5%	R19 R22
075	2	EA	91637	100-037-150	CCF-07-150-J	MTFLM 15 OHM .25W 5%	R20 R21
076	1	EA	81349	100-255-3321	RNC55H3321F	MTFLM 3.32K .1W 1%	R23
077	1	EA	91637	100-037-122	CCF-07-122-J	MTFLM 1.2K .25W 5%	R24
079	6	EA	91637	100-037-220	CCF-07-220-J	MTFLM 22 OHM .25W 5%	R30 R31 R49 R50 R168 R169
080	11	EA	91637	100-037-103	CCF-07-103-J	MTFLM 10K .25W 5%	R32 R42 R83 R86 R117 R120 R219 R249 R260 R285 R288
082	14	EA	91637	100-037-472	CCF-07-472-J	MTFLM 4.7K .25W 5%	R33 R34 R37 R55 R56 R93 R97 R149 R157 R159 R182 R188 R262 R263
083	6	EA	91637	100-037-750	CCF-07-750-J	MTFLM 75 OHM .25W 5%	R35 R38 R40 R95 R96 R154
084	1	EA	91637	100-037-182	CCF-07-182-J	MTFLM 1.8K .25W 5%	R130
085	7	EA	91637	100-037-682	CCF-07-682-J	MTFLM 6.8K .25W 5%	R44 R46 R48 R57 R58 R137 R138
087	3	EA		100-106-064	750-101-R1.5K	RESNET 9BUSD 1.5K	R52 R53 R54

PARTS LIST	DESIGN ACTIVITY IDENTIFICATION AYDIN COMPUTER AND MONITOR DIVISION HORSHAM, PA. 19044	CONTRACT NO. 9904	CAGE CODE 20747	PL460-2199-501	REV A

LIST TITLE GP036-1 CARD ASSY	SUBCONTRACT NO.		SHEET NO. 6

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
089	12	EA	71450	100-106-006	750-101-R6.8K	RESNET 9BUSD 6.8K	R59 R276 R277 R278 R279 R280 R281 R291 R292 R293 R294 R295
091	8	EA		100-255-10R0	RNC55H10R0F	MTFLM 10 OHW 1%	R60 R64 R68 R69 R99 R100 R114 R115
092	4	EA	81349	100-255-27R4	RNC55H27R4F	MTFLM 27.4 OHM .1W 1%	R61 R63 R105 R113
093	4	EA	81349	100-255-78R7	RNC55H78R7F	MTFLM 78.7 OHM .1W 1%	R62 R67 R109 R112
094	4	EA	81349	100-255-76R8	RNC55H76R8F	MTFLM 76.8 OHM .1W 1%	R65 R66 R110 R111
095	4	EA	91637	100-037-100	CCF-07-100-J	MTFLM 10 OHM .25W 5%	R70 R75 R106 R108
097	4	EA	81349	100-255-12R7	RNC55H12R7F	MTFLM 12.7 OHM .1W 1%	R71 R72 R101 R102
098	3	EA	81349	100-255-4532	RNC55H4532F	MTFLM 45.3K .1W 1%	R74 R103 R273
099	2	EA	81349	100-255-2002	RNC55H2002F	MTFLM 20K .1W 1%	R76 R107
100	2	EA	81349	100-255-2212	RNC55H2212F	MTFLM 22.1K .1W 1%	R80 R135
102	4	EA	91637	100-037-390	CCF-07-390-J	MTFLM 39 OHM .25W 5%	R89 R90 R132 R133
104	3	EA	91637	100-037-561	CCF-07-561-J	MTFLM 560 OHM .25W 5%	R91 R140 R243
107	40	EA	91637	100-037-152	CCF-07-152-J	MTFLM 1.5K .25W 5%	R98 R125 R189 R190 R191 R214 R215 R216 R218 R230 R231 R232 R233 R234 R235 R236 R237 R238 R239 R240 R241 R248 R250 R251 R252 R253 R254 R255 R256 R261 R266 R267 R268 R282 R283 R284 R286 R287 R289 R296

PARTS LIST	DESIGN ACTIVITY IDENTIFICATION: AYDIN COMPUTER AND MONITOR DIVISION, HORSHAM, PA. 19044	CONTRACT NO. 9904	CAGE CODE 20747	PL460-2199-501	REV A

LIST TITLE	SUBCONTRACT NO.	SHEET NO.
GP036-1 CARD ASSY		7

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
109	1	EA	91637	100-037-623	CCF-07-623-J	MTFLM 62K .25W 5%	R126
110	1	EA	91637	100-037-822	CCF-07-822-J	MTFLM 8.2K .25W 5%	R127
111	4	EA	91637	100-037-471	CCF-07-471-J	MTFLM 470 OHM .25W 5%	R128 R129 R258 R259
113	2	EA	91637	100-037-332	CCF-07-332-J	MTFLM 3.3K .25W 5%	R143 R148
114	1	EA	81349	100-255-2492	RNC55H2492F	MTFLM 24.9K .1W 1%	R147
115	1	EA	91637	100-037-202	CCF-07-202-J	MTFLM 2K .25W 5%	R161
116	1	EA	91637	100-037-153	CCF-07-153-J	MTFLM 15K .25W 5%	R162
118	1	EA	91637	100-037-302	CCF-07-302-J	MTFLM 3K .25W 5%	R165
119	1	EA	91637	100-037-132	CCF-07-132-J	MTFLM 1.3K .25W 5%	R166
120	1	EA	81349	100-255-49R9	RNC55H49R9F	MTFLM 49.9 OHM .1W 1%	R171
121	1	EA		100-432-030	CG.5-.33 OHM	WRE/WD .33 OHM .5W 5%	R172
122	6	EA	81349	100-255-39R2	RNC55H39R2F	MTFLM 39.2 OHM .1W 1%	R173 R174 R177 R185 R186 R187
124	2	EA	81349	100-255-68R1	RNC55H68R1F	MTFLM 68.1 OHM .1W 1%	R175 R176
125	3	EA	91637	100-037-681	CCF-07-681-J	MTFLM 680 OHM .25W 5%	R178 R180 R183
126	2	EA	81349	100-255-4992	RNC55H4992F	MTFLM 49.9K .1W 1%	R200 R203
127	2	EA	81349	100-215-5621	RN55D5621F	MTFLM 5.62K .125W 1%	R201 R202
128	2	EA	81349	100-255-1101	RNC55H1101F	MTFLM 1.1K .1W 1%	R205 R208
129	2	EA	81349	100-255-51R1	RNC55H51R1F	MTFLM 51.1 OHM .125W 1%	R206 R209
130	2	EA	81349	100-255-1651	RNC55H1651F	MTFLM 1.65K .1W 1%	R207 R210
131	1	EA	71450	100-106-005	750-101-R1K	RESNET 5BUSD 1K OHM	R217
133	1	EA	91637	100-037-272	CCF-07-272-J	MTFLM 2.7K .25W 5%	R222
134	1	EA	91637	100-037-113	CCF-01-113-J	MTFLM 11K .25W 5%	R223
135	1	EA	91637	100-037-362	CCF-07-362-J	MTFLM 3.6K .25W 5%	R226
139	1	EA	91637	100-037-392	CCF-07-392-J	MTFLM 3.9K .25W 5%	R245

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LIST TITLE	SUBCONTRACT NO.	SHEET NO.
GP036-1 CARD ASSY		8

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
140	1	EA	32997	101-156-102	3339P-1-102	CERMT RND 1K .5W 10%	R246
146	1	EA	81349	100-215-2151	RN55D2151F	MTFLM 2.15K .125W 1%	R264
147	1	EA	81349	100-255-1301	RNC55H1301F	MTFLM 1.3K .1W 1%	R265
148	1	EA		100-255-8870	RNC55H8870F	MTFLM 887 OHM .1W 1%	R270
149	1	EA	81349	100-255-8060	RNC55H8060F	MTFLM 806 OHM .1W 1%	R271
150	1	EA		100-255-4321	RNC55H4321F	MTFLM 4.32K .125W 1%	R272
152	1	EA	81349	100-215-1181	RN55D1181F	MTFLM 1.18K .125W 1%	R274
153	1	EA	91637	100-037-244	CCF-07-244-J	MTFLM 240K .25W 5%	R297
156	3	EA	00779	107-218-204	435626-1	SW DIP 4 SPST 8 PIN	S1 S2 S3
158	2	EA	01961	109-076-001	PE-5158X	XFMR PULSE	T1 T2
160	1	EA	01295	139-198-113	SN74LS113AN	DUAL JK FF W/PR 14 PN	U1
161	3	EA	01295	139-198-410	SN74LS10N	3IN PNAND 14P	U2 U88 U103
162	1	EA	01295	139-198-426	SN74LS26N	QUAD 2IN HV PNAND 14P	U3
163	5	EA	01295	139-163-002	MC1458P	IC OP AMP 8 PIN DIP	U4 U26 U27 U41 U52
164	1	EA	12040	139-692-404	MM74HCT04N	HEX INVERTER	U5
166	5	EA	01295	139-198-404	SN74LS04N	HEX INVERTER 14P	U85 U115 U147 U175 U187
167	9	EA		139-598-486	74F86PC	IC QUAD 2IN XOR 14PN	U6 U29 U33 U55 U75 U76 U100 U160 U182
169	1	EA	18324	139-598-3037	N74F3037N	IC LINE DRIVER 16 PIN	U7
170	2	EA		139-598-132	N74F132N	IC QUAD 2IN SCHTR 14	U8 U159
171	1	EA		139-598-157	74F157APC	IC QUAD 2IN MUX 16PN	U9
172	2	EA	01295	139-152-140	SN74S140N	POS-NAND 50 OHM 14P	U10 U34
174	3	EA	01295	139-046-417	SN7417N	HEX BUFFER/DR 14P	U11 U12 U13
175	1	EA	01295	139-152-405	SN74S05N	HEX INVERTER OC 14P	U14

PARTS LIST	DESIGN ACTIVITY IDENTIFICATION AYDIN COMPUTER AND MONITOR DIVISION HORSHAM, PA. 19044	CONTRACT NO. 9904	CAGE CODE 20747	PL460-2199-501	REV A

LIST TITLE GP036-1 CARD ASSY	SUBCONTRACT NO.		SHEET NO. 9

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
176	1	EA	01295	139-543-003	UA9636ACP	IC LINE DRIVER 8 PIN	U15
177	1	EA	01295	139-200-150	SN75150P	IC LINE DRIVER 8 PIN	U16
178	2	EA	18324	139-055-816	N8T16N	QUAD MDTL LINE RS 14P	U17 U18
180	1	EA	34649	139-552-003	D8291A	IC TALK/LISTEN 40 PIN	U19
181	2	EA	34649	139-552-002	D8293	IC TALK/LISTEN 28 PIN	U20 U21
182	3	EA	12040	139-692-244	MM74HCT244N	IC TRI-ST BUFF 20 PIN	U22 U23 U24
184	1	EA	01295	139-198-437	SN74LS37N	IC TTL 14 PIN	U25
185	1	EA	51640	139-141-001	AD741KH	OP AMP 8 PN TO99 CAN	U28
186	1	EA	01295	139-198-402	SN74LS02N	QUAD 2IN PNOR 14P	U30
187	1	EA	18324	139-174-001	UA741CN	IC OP AMP 8 PIN DIP	U31
188	4	EA	07263	139-598-404	74F04PC	HEX INVERTER 14 PIN	U32 U126 U192 U194
191	9	EA		139-598-151	74F151PC	IC MULTIPLXR 8IN 16PN	U35 U38 U53 U54 U57 U58 U151 U152 U163
192	6	EA	07263	139-598-164	74F164PC	IC SHIFT REGIS 14 PIN	U36 U37 U80 U123 U124 U125
193	3	EA	01295	139-198-432	SN74LS32N	QUAD 2IN POR 14P	U39 U65 U83
194	1	EA	01295	139-046-486	SN7486N	EXCLUSIVE-OR GATE 14P	U40
196	1	EA	01295	139-085-452	SN75452BP	IC PERI DRIVER 8 PIN	U42
197	2	EA	01295	139-542-003	UA9637ACP	IC LINE RECVR 8 PIN	U43 U44
198	1	EA	01295	139-152-403	SN74S03N	QUAD POS-NAND OC 14P	U45
200	6	EA	01295	139-198-195	SN74LS195AN	4BIT P-ASHFT REG 16P	U46 U47 U48 U49 U50 U51
201	2	EA		139-598-174	74F174PC	IC HEX D F/F 16 PIN	U56 U74
202	2	EA	18324	139-598-244	N74F244N	IC BUF'R OCTL 20 PIN	U59 U97
205	1	EA	20747	291-0412-501	291-0412-501	UP INSTR SET 604M-I	U60

PARTS LIST	DESIGN ACTIVITY IDENTIFICATION AYDIN COMPUTER AND MONITOR DIVISION HORSHAM, PA. 19044	CONTRACT NO. 9904	CAGE CODE 20747	PL460-2199-501	REV A

LIST TITLE	SUBCONTRACT NO.		SHEET NO.
GP036-1 CARD ASSY			10

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
206	1	EA	52531	139-666-001	HM6264ALP-12	IC RAM 28 PIN	U61
207	1	EA	56708	139-555-002	Z0840004PSC	IC PROCESSOR 40 PIN	U62
208	1	EA	12040	139-692-245	MM74HCT245N	OCTAL BUS XSVR	U63
211	3	EA	01295	139-163-005	TL514C	IC OP AMP 14 PIN	U64 U66 U67
212	1	EA	86684	139-209-002	CA3046	TRANS ARRAY	U68
213	5	EA		139-598-400	74F00PC	IC QUAD NAND 14 PIN	U69 U154 U158 U161 U167
214	2	EA	01295	139-198-408	SN74LS08N	QUAD 2IN PAND 14P	U70 U104
216	3	EA	01295	139-198-400	SN74LS00N	QUAD 2IN NAND 14P	U71 U105 U119
218	11	EA		139-598-163	74F163APC	IC 4BIT CNTR SYN 16P	U72 U121 U128 U129 U136 U137 U138 U148 U155 U156 U176
219	1	EA	07263	139-598-175	74F175PC	IC QUAD D F/F 16 PIN	U73
220	15	EA	07263	139-598-474	74F74PC	DUAL D-TYPE F/F 14PIN	U77 U78 U79 U87 U98 U101 U109 U113 U122 U143 U145 U153 U168 U181 U193
223	5	EA	01295	139-198-474	SN74LS74AN	DUAL FF/PR/CLR 14P	U81 U82 U95 U120 U134
224	1	EA	01295	139-198-139	SN74LS139AN	2-4DEC/DEM 16P	U84
225	1	EA	01295	139-912-002	TL7705ACP	IC VOLT SUPERV 8 PIN	U86
226	5	EA		139-598-112	74F112PC	DUAL JK F/F NEG 16PN	U142 U177 U180 U184 U166
227	6	EA	01295	139-198-393	SN74LS393N	DUAL 4BIT BIN CTR 14P	U89 U90 U91 U93 U94 U188
230	3	EA		139-598-402	74F02PC	IC QUAD 2IN NOR 14P	U92 U106 U141
231	7	EA	01295	139-198-112	SN74LS112AN	DUAL J-K NEGFF/CLR16P	U96 U116 U117 U130 U131 U132 U144

PARTS LIST	DESIGN ACTIVITY IDENTIFICATION AYDIN COMPUTER AND MONITOR DIVISION HORSHAM, PA. 19044	CONTRACT NO. 9904	CAGE CODE 20747	PL460-2199-501	REV A

LIST TITLE	SUBCONTRACT NO.	SHEET NO.
GP036-1 CARD ASSY		11

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
232	5	EA		139-598-451	N74F51N	IC DUAL 2IN AOI 14PN	U99 U127 U139 U140 U162
234	2	EA	01295	139-198-163	SN74LS163AN	SYN4-BITCTRBIN/CLR16P	U107 U108
235	2	EA		139-598-420	74F20PC	IC DUAL 4IN NAND 14P	U102 U195
237	1	EA	07263	139-598-432	74F32PC	QUAD 2IN "OR" GTE 14P	U112
238	2	EA	07263	139-598-408	74F08PC	QUAD 2INPT AND GTE	U114 U178
239	1	EA	01295	139-198-451	SN74LS51N	AND-OR INVERT 14P	U118
240	1	EA	01295	139-198-175	SN74LS175N	QUAD D-TYPE FF 16P	U133
241	1	EA	01295	139-198-420	SN74LS20N	DUAL 4IN PNAND 14P	U135
242	2	EA	01295	139-198-430	SN74LS30N	8 INPUT NAND 14 PIN	U146 U197
243	1	EA		139-598-240	74F240PC	IC INVRTNG BUS/DR 20P	U149
246	1	EA	01295	139-152-158	SN74S158N	QUAD DATA SWL/MUX 16P	U150
247	2	EA		139-598-411	74F11PC	3IN "AND" GTE 14PIN	U157 U196
248	1	EA	01295	139-198-162	SN74LS162AN	SYN4BITCTRDEC/CLR 16P	U164
250	3	EA	07263	139-598-410	74F10PC	3INPUT NAND GATE 14PN	U165 U179 U183
251	1	EA	01295	139-198-190	SN74LS190N	UP/DWN CTR BCD 16P	U169
252	5	EA	01295	139-152-196	SN74S196N	BIN-CTR/LATCH 14P	U170 U171 U172 U198 U199
254	2	EA	01295	139-046-128	SN74128N	2IN 500HM LN DRVR 14P	U173 U185
255	1	EA	01295	139-198-438	SN74LS38N	QUAD 2IN NANDBUFOC14P	U174
257	1	EA		139-598-153	74F153PC	IC DUAL 4-1 MUX 16PN	U186
258	3	EA	01295	139-198-390	SN74LS390N	DUAL DEC CTR 16P	U189 U190 U191
260	9	EA	01295	139-198-138	SN74LS138N	3-8 DEC/DEM 16P	U200 U201 U202 U203 U204 U205 U206 U207 U208
263	1	EA	01295	139-647-367	SN74HC367N	HEX BUS DRV 3S 16P	U209

PARTS LIST	DESIGN ACTIVITY IDENTIFICATION AYDIN COMPUTER AND MONITOR DIVISION HORSHAM, PA. 19044	CONTRACT NO. 9904	CAGE CODE 20747	PL460-2199-501	REV A

LIST TITLE	SUBCONTRACT NO.	SHEET NO.
GP036-1 CARD ASSY		12

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
265	11	EA	12040	139-647-244	MM74HC244N	OCTAL BUF 3S 20P	U210 U211 U212 U213 U214 U215 U226 U227 U228 U229 U230
267	10	EA	50364	139-198-794	SN74LS794N	IC TTL 20 PIN	U216 U217 U218 U219 U220 U221 U222 U223 U224 U225
268	1	EA	01295	139-198-123	SN74LS123N	DUAL MULTVIB W/CLR16P	U231
270	1	EA	23875	133-027-074	MT0-T1-S3-8.0MHZ	XSTL OSC 8.0MHZ .1%	Y1
271	1	EA	01537	133-027-020	M1245-5.600 MHZ	CRYSTAL OSC 5.600 MHZ	Y2
280	2	EA	55322	108-935-001	ICO-308-SGT	SCKT DIP 8 PIN .3CTR	
281	4	EA	55322	108-935-002	ICO-314-SGT	SCKT DIP 14 PN .3CTR	
282	2	EA	55322	108-935-003	ICO-316-SGT	SCKT DIP 16 PN .3CTR	
291	2	EA		108-935-009	ICO-640-SGT	SCKT DIP 40PN .6 CTR	
292	4	EA	55322	108-935-008	ICO-628-SGT	SCKT DIP 28PN .6 CTR	
295	10	EA	07047	131-013-001	10047	PAD TRANS TO 18 4 PIN	
296	3	EA	07047	131-014-001	10030	PAD TRANS TO 5 3 PIN	XQ8 XQ15 XQ30
298	10	EA	98978	116-002-004	TXBF-019-025B	HEAT SINK TRANS TO-18	
299	2	EA	98978	116-002-003	TXBF-032-025B	HEAT SINK TRANS TO-5	
300	1	EA	07047	131-017-001	10383 DAP	PAD IC TO5 8PIN	USED WITH U28
303	18	EA	22526	108-718-001	65474-010	JUMPER PLUG	
305	4	EA	96906	127-109-015	MS51957-15	SCR PAN HD 4-40X3/8	
306	2	EA	96906	127-109-007	MS51957-07	SCR PAN HD 2-56X1\2	
307	4	EA	02751	128-106-005	4	WSHR FLT NY THIN NO.4	
308	2	EA	02751	128-106-006	2	WSHR FLT NY THIN NO.2	
309	4	EA	72962	129-001-003	92-1660-40	NUT HEX LK MINTR 4-40	
310	2	EA	72962	129-001-002	92-1660-26	NUT HEX LK MINTR 2-56	

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LIST TITLE	SUBCONTRACT NO.		SHEET NO.
GP036-1 CARD ASSY			13

FIND NO	QTY REQ	U/M	CAGE CODE	DOCUMENT NUMBER	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES
320	AR	EA	62619	124-035-005	DAT-20-619-1	LABEL P. FILM 1.0X.5	
				AT 297-1255		ACCEPTANCE TEST PROCEDURE - 604MI MICROPROCCESSOR	
				AD 460-2199-501		ASSEMBLY DRAWING - GEN PURP CARD GP036	
				SD 600-0565		SCHEMATIC DIAGRAM - GEN PURP CARD GP036	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	—	RELEASED	11/20/89	
	A	REV PER ECO 19173 A.A.	3/12/91	

SHEET	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REV.	—														
SHEET	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
REV.	—	—													
SHEET	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
REV.	—	—	—	—	—	—	A	—	—	—	—	—	A	A	A
SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
REV.	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NEXT ASSY.	USED ON
6848	
APPLICATION	

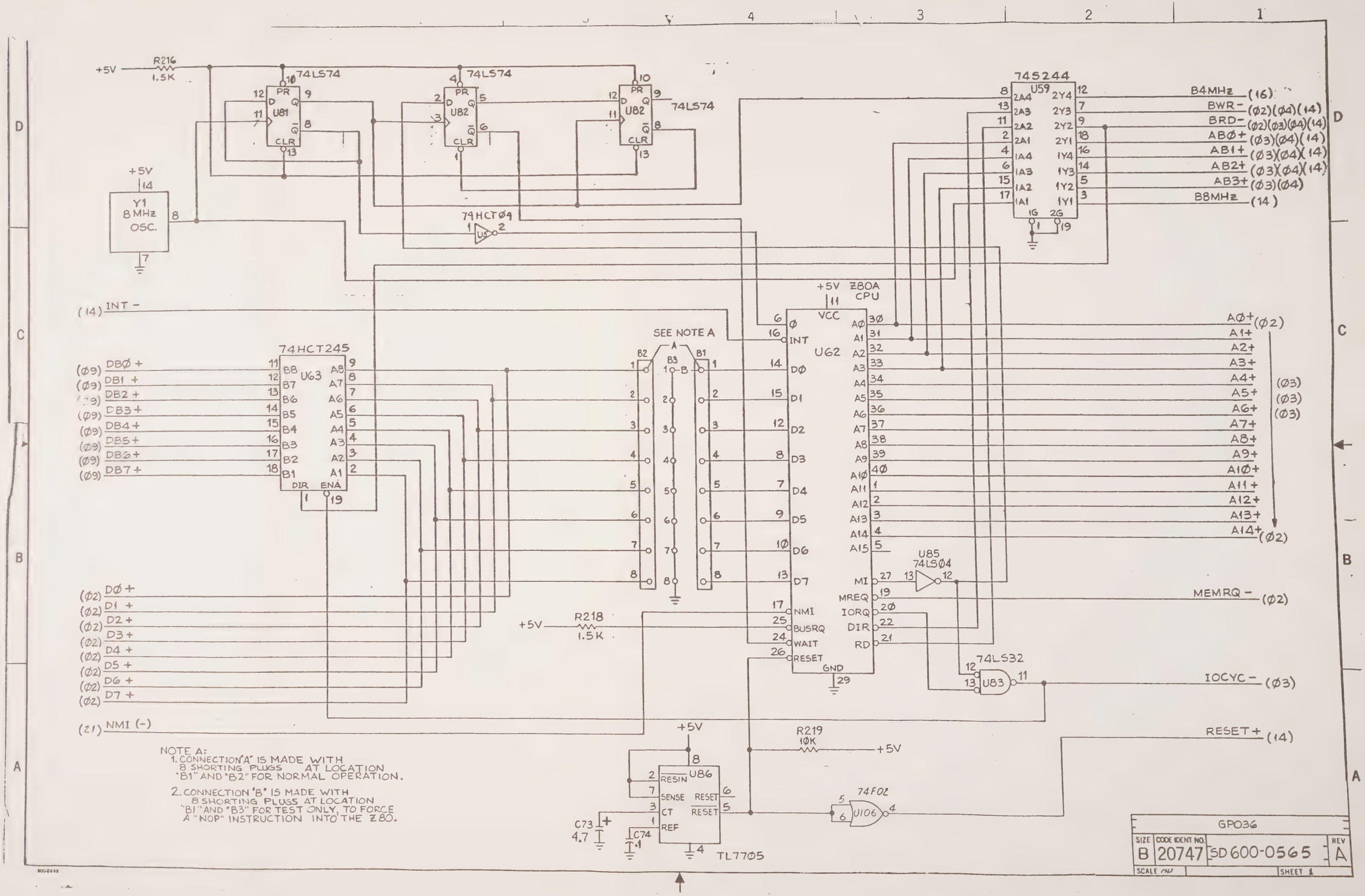
DRAWN C. GWYNN	DATE 89-11-2
CHECKED [illegible]	
DRAFTING [illegible]	89-11-20
ENGINEER [illegible]	
APPROVED [illegible]	11/21/89
MAGNETIC MEDIA (FILMS ONLY)	

AYDIN COMPUTER AND MONITOR DIVISION
700 DRESHER ROAD
HORSHAM, PA 19044

SCHEMATIC DIAGRAM GPD36

SIZE	CAGE CODE	DOCUMENT NO.	REV.
B	20747	SD600-0565	A

SHEET NO. 00 OF 32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1.5K
74LS74
U81
U82
74LS74
74LS74
+5V
Y1
8 MHz
OSC.
74HCTØ4
U5
745244
U59
B4MHz (16)
BWR- (Ø2)(Ø4)(14)
BRD- (Ø2)(Ø3)(Ø4)(14)
ABØ+ (Ø3)(Ø4)(14)
AB1+ (Ø3)(Ø4)(14)
AB2+ (Ø3)(Ø4)(14)
AB3+ (Ø3)(Ø4)
B8MHz (14)
(14) INT -
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U63
(Ø9) DBØ +
(Ø9) DB1 +
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(Ø9) DB5 +
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(Ø9) DB7 +
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ENA
SEE NOTE A
B2
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+5V
Z80A
CPU
U62
VCC
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INT
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D4
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D6
D7
NMI
BUSRQ
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RESET
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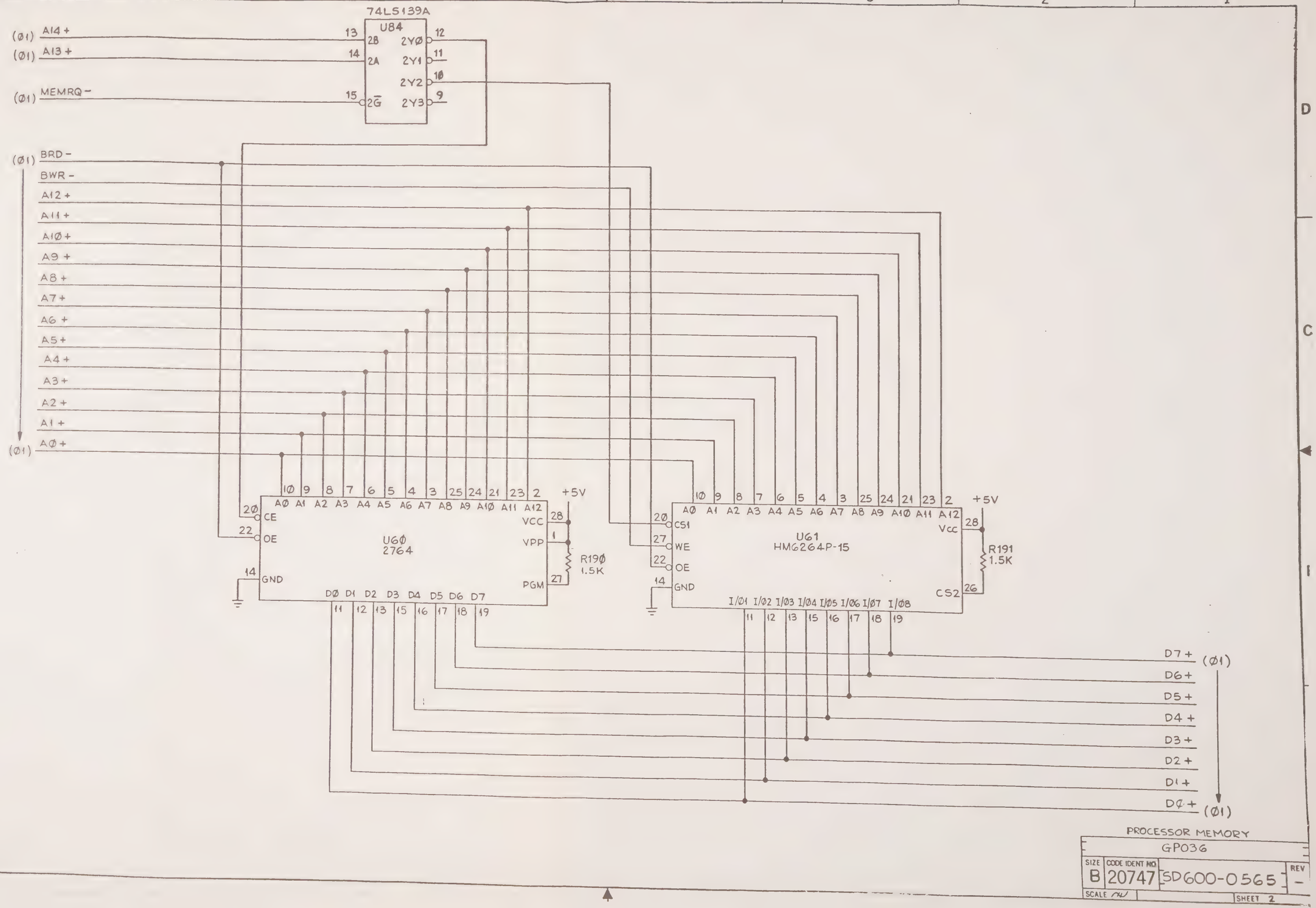
A1+
A2+
A3+
A4+ (Ø3)
A5+ (Ø3)
A6+ (Ø3)
A7+
A8+
A9+
AIØ+
A11+
A12+
A13+
A14+ (Ø2)
U85
74LSØ4
MI
MREQ
IORQ
DIR
RD
MEMRQ - (Ø2)
74LS32
U83
IOCYC - (Ø3)
(Ø2) DØ +
(Ø2) D1 +
(Ø2) D2 +
(Ø2) D3 +
(Ø2) D4 +
(Ø2) D5 +
(Ø2) D6 +
(Ø2) D7 +
(21) NMI (-)
+5V
R218
1.5K
R219
10K
+5V
RESET + (14)
U86
RESIN
SENSE
CT
REF
RESET
RESET
C73
4.7
C74
.1
TL7705
74F02
U106
NOTE A:
1. CONNECTION "A" IS MADE WITH 8 SHORTING PLUGS AT LOCATION "B1" AND "B2" FOR NORMAL OPERATION.
2. CONNECTION "B" IS MADE WITH 8 SHORTING PLUGS AT LOCATION "B1" AND "B3" FOR TEST ONLY, TO FORCE A "NOP" INSTRUCTION INTO THE Z80.
GP036
SIZE B
CODE IDENT NO. 20747
SD 600-0565
REV A
SCALE NU
SHEET 1

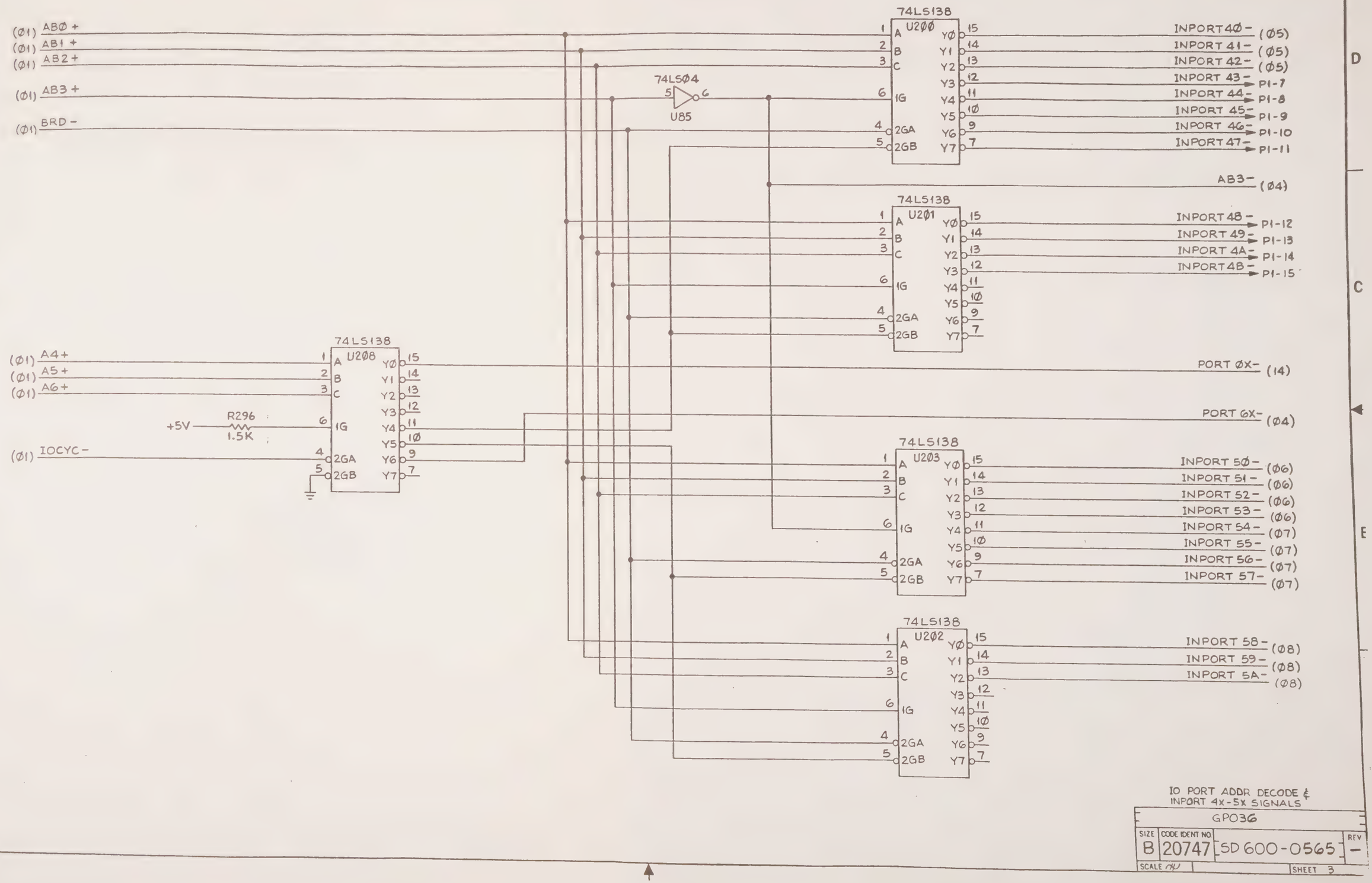


PROCESSOR MEMORY

GP036

SIZE	CODE IDENT NO.		REV
B	20747	SD600-0565	-

SCALE NONE SHEET 2

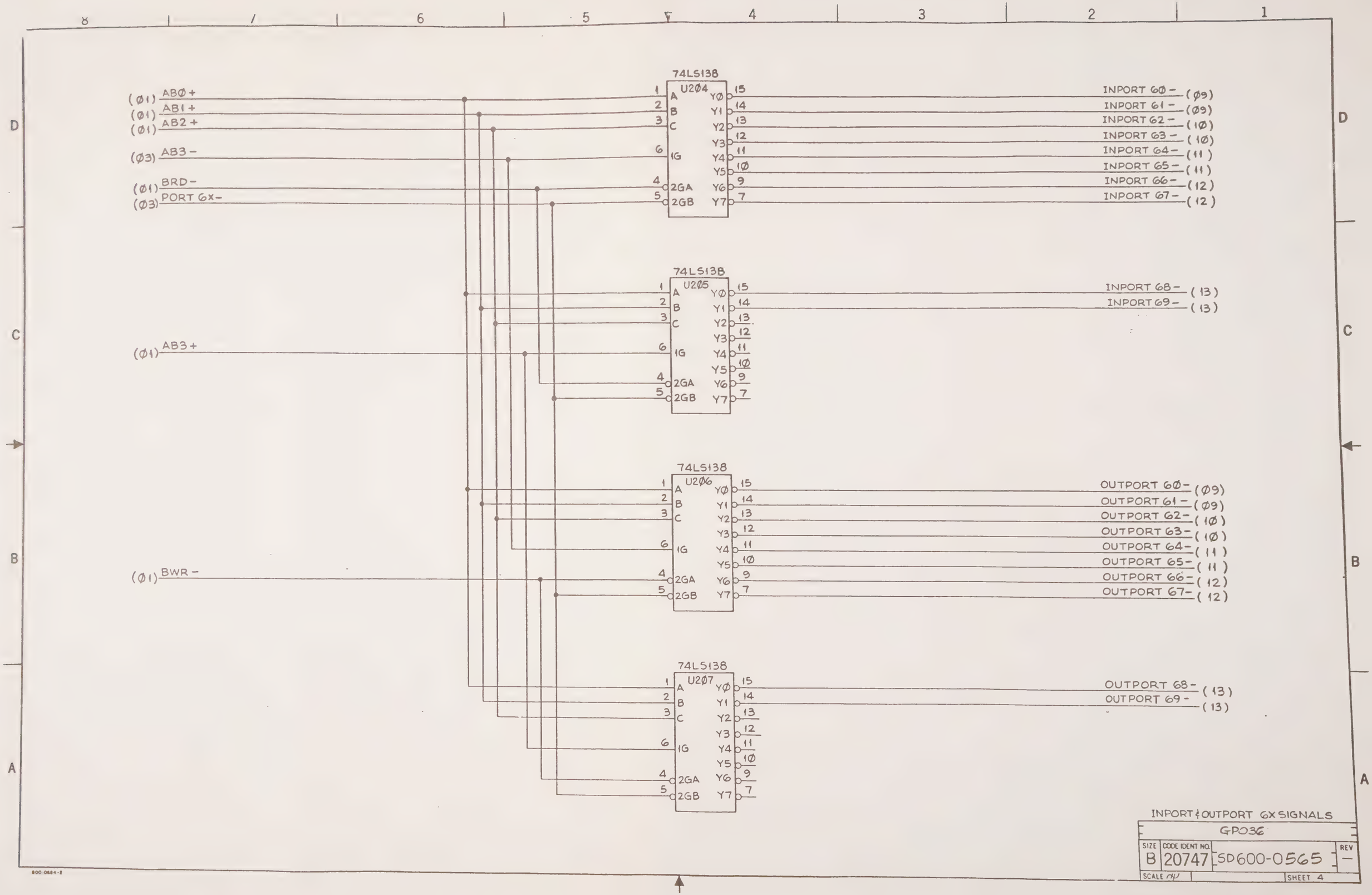


IO PORT ADDR DECODE & INPORT 4x-5x SIGNALS

GP036

SIZE	CODE IDENT NO.		REV
B	20747	SD 600-0565	-
SCALE NONE		SHEET 3	

800-0684-2

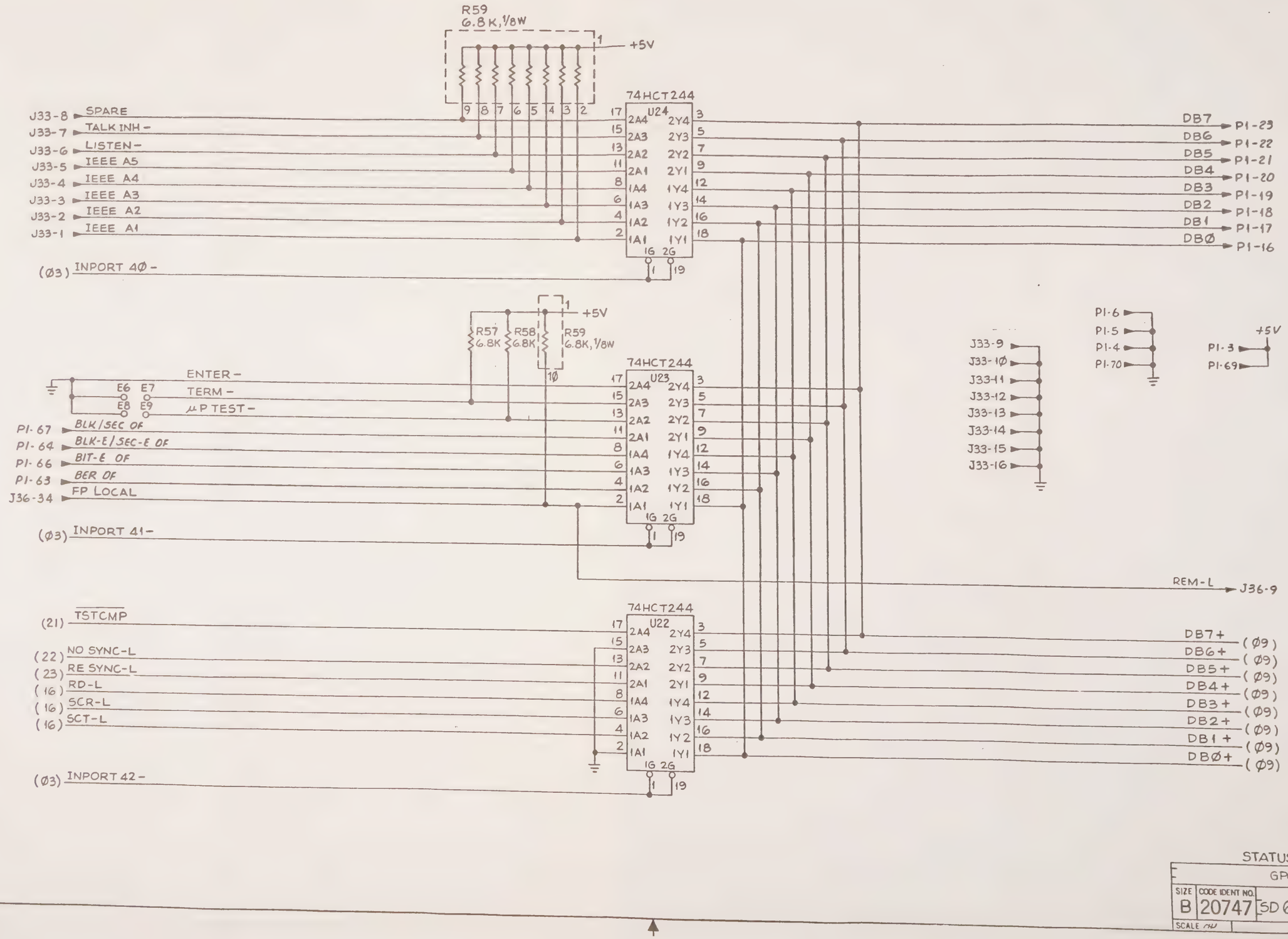


INPORT & OUTPORT 6X SIGNALS

GP03E

SIZE	CODE IDENT NO.		REV
B	20747	SD600-0565	—
SCALE NA		SHEET 4	

800-0684-2

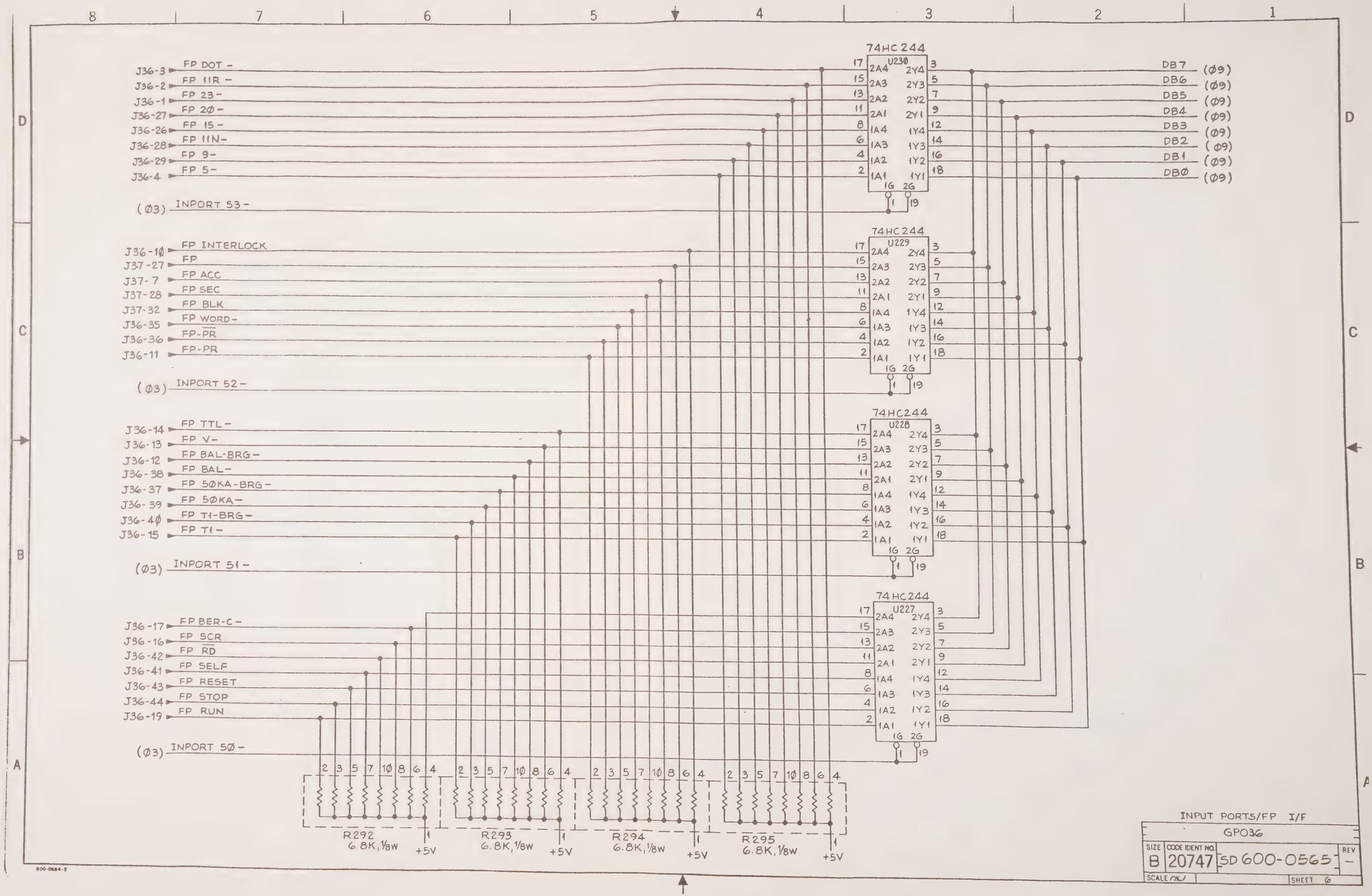


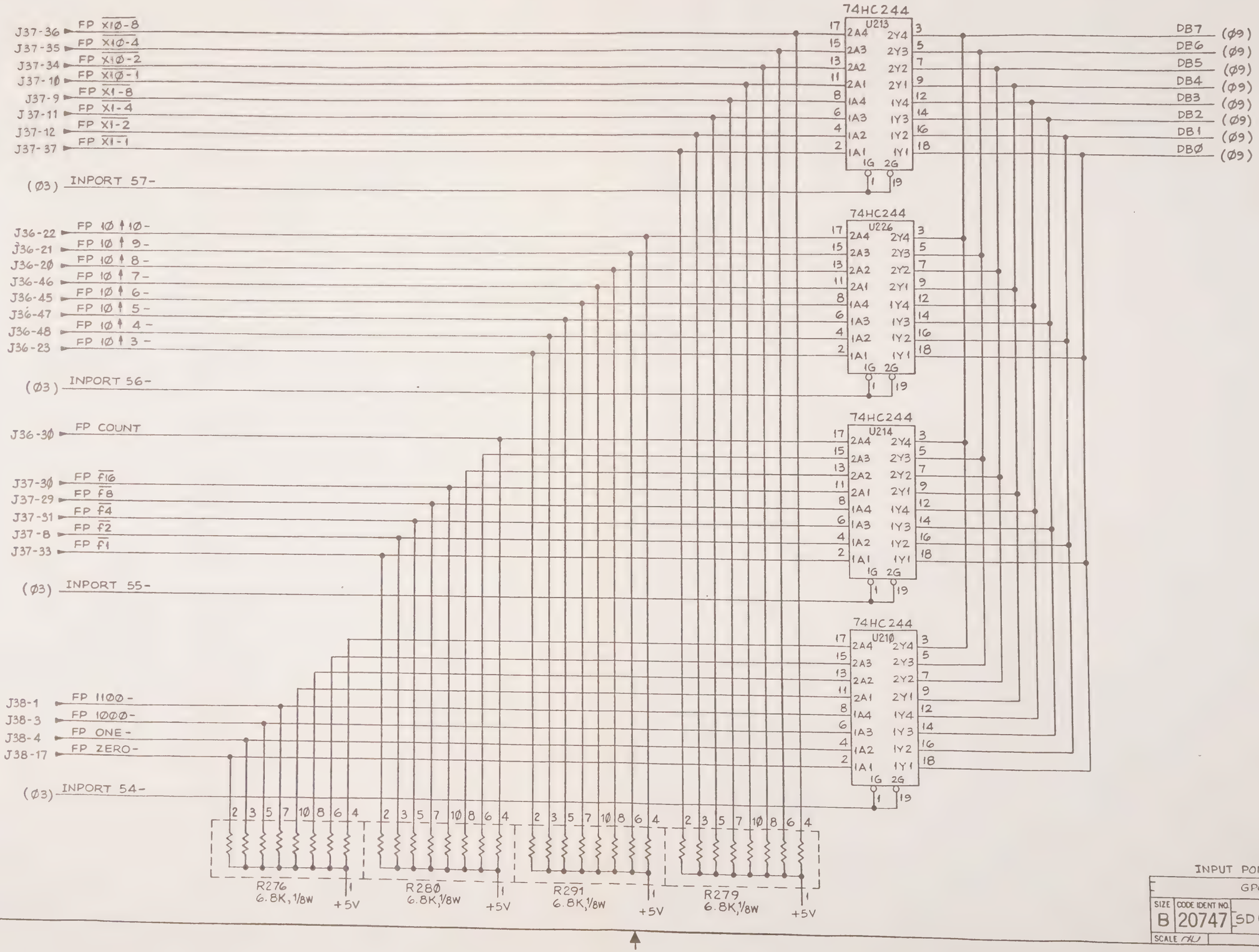
800-0684-2

STATUS INPUTS

GP036

SIZE	CODE IDENT NO.		REV
B	20747	SD 600-0565	—
SCALE none		SHEET 5	


8
7
6
5
4
3
2
1
D
C
B
A
J36-3 FP DOT -
J36-2 FP 11R -
J36-1 FP 23 -
J36-27 FP 2Ø -
J36-26 FP 15 -
J36-28 FP 11N -
J36-29 FP 9 -
J36-4 FP 5 -
(Ø3) INPORT 53 -
J36-10 FP INTERLOCK
J37-27 FP
J37-7 FP ACC
J37-28 FP SEC
J37-32 FP BLK
J36-35 FP WORD -
J36-36 FP -PR
J36-11 FP -PR
(Ø3) INPORT 52 -
J36-14 FP TTL -
J36-13 FP V -
J36-12 FP BAL-BRG -
J36-38 FP BAL -
J36-37 FP 5ØKA-BRG -
J36-39 FP 5ØKA -
J36-4Ø FP T1-BRG -
J36-15 FP T1 -
(Ø3) INPORT 51 -
J36-17 FP BER-C -
J36-16 FP SCR
J36-42 FP RD
J36-41 FP SELF
J36-43 FP RESET
J36-44 FP STOP
J36-19 FP RUN
(Ø3) INPORT 5Ø -
74HC244
U230
74HC244
U229
74HC244
U228
74HC244
U227
2A4 2A3 2A2 2A1 1A4 1A3 1A2 1A1
2Y4 2Y3 2Y2 2Y1 1Y4 1Y3 1Y2 1Y1
1G 2G
DB7 (Ø9)
DB6 (Ø9)
DB5 (Ø9)
DB4 (Ø9)
DB3 (Ø9)
DB2 (Ø9)
DB1 (Ø9)
DBØ (Ø9)
2 3 5 7 1Ø 8 6 4
R292 6.8K, 1/8W
R293 6.8K, 1/8W
R294 6.8K, 1/8W
R295 6.8K, 1/8W
+5V
800-0684-E
INPUT PORTS/FP I/F
GP036
SIZE B
CODE IDENT NO. 20747
SD 600-0565
REV -
SCALE NONE
SHEET 6

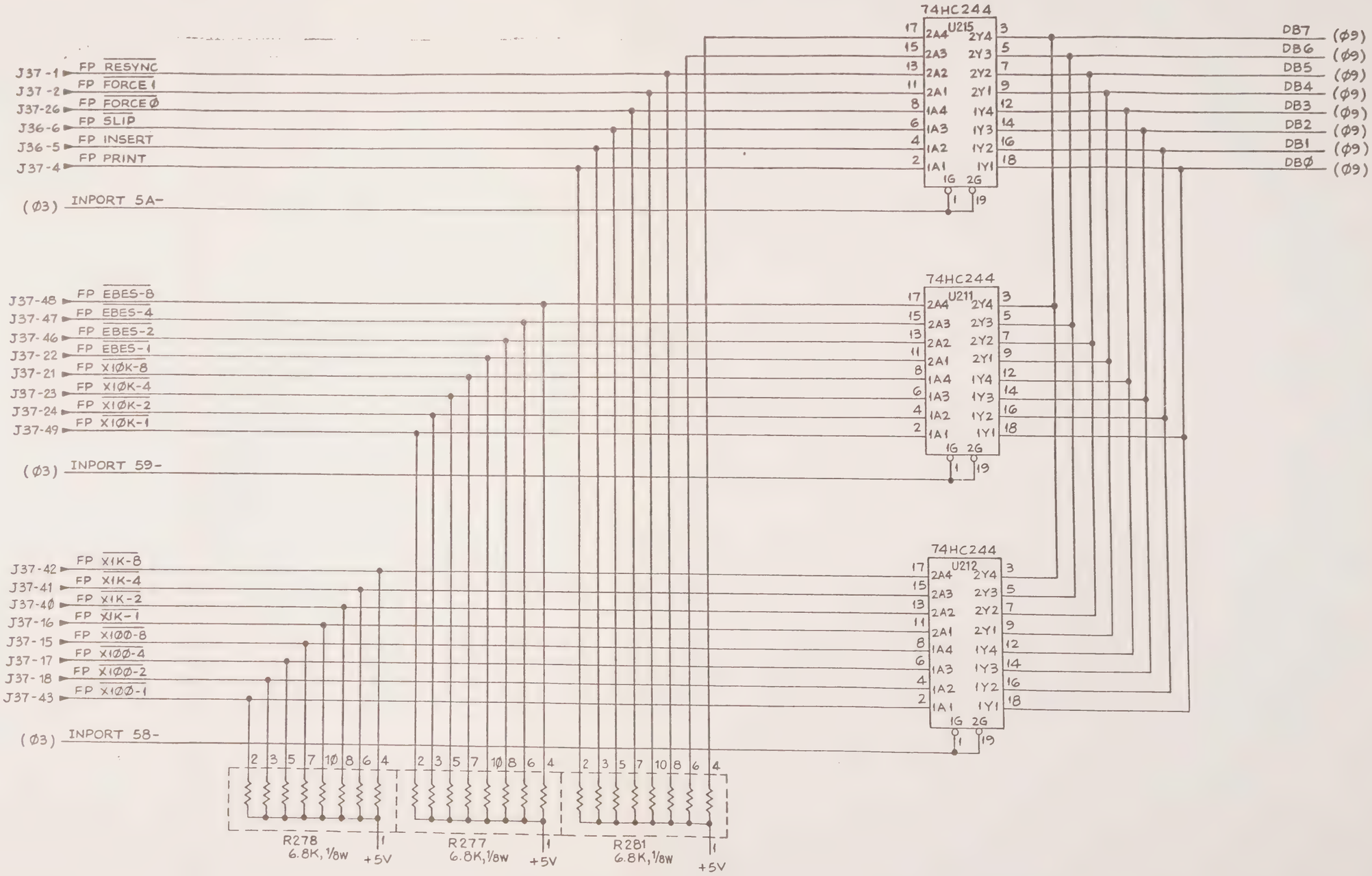


INPUT PORTS/FP I/F

GPO36

SIZE	CODE IDENT NO.		REV
B	20747	SD600-0565	—
SCALE NONE		SHEET 7	

00-0684-2

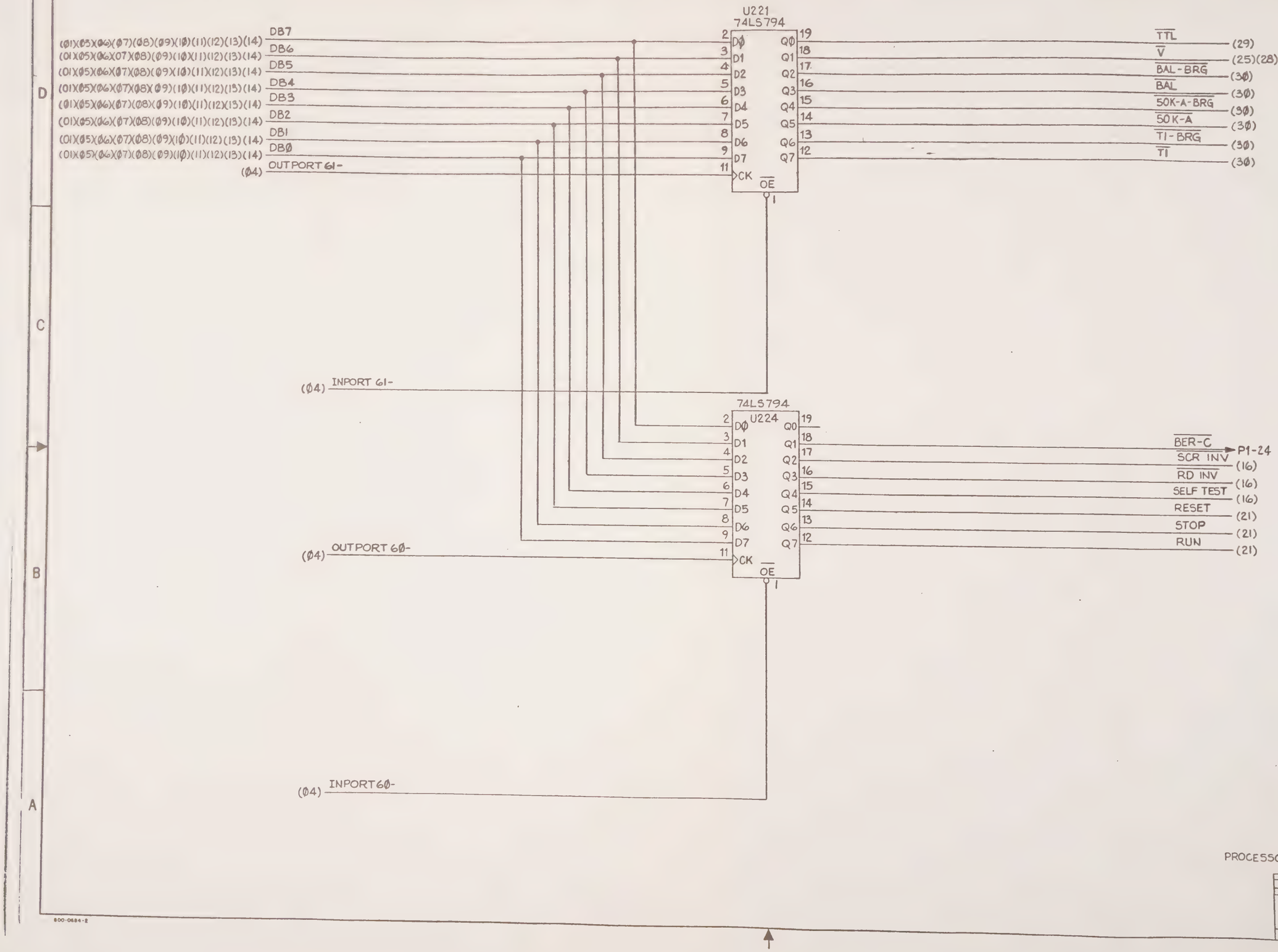


INPUT PORTS/FP I/F

GP036

SIZE	CODE IDENT NO.		REV
B	20747	SD600-0565	–
SCALE NONE		SHEET 8	

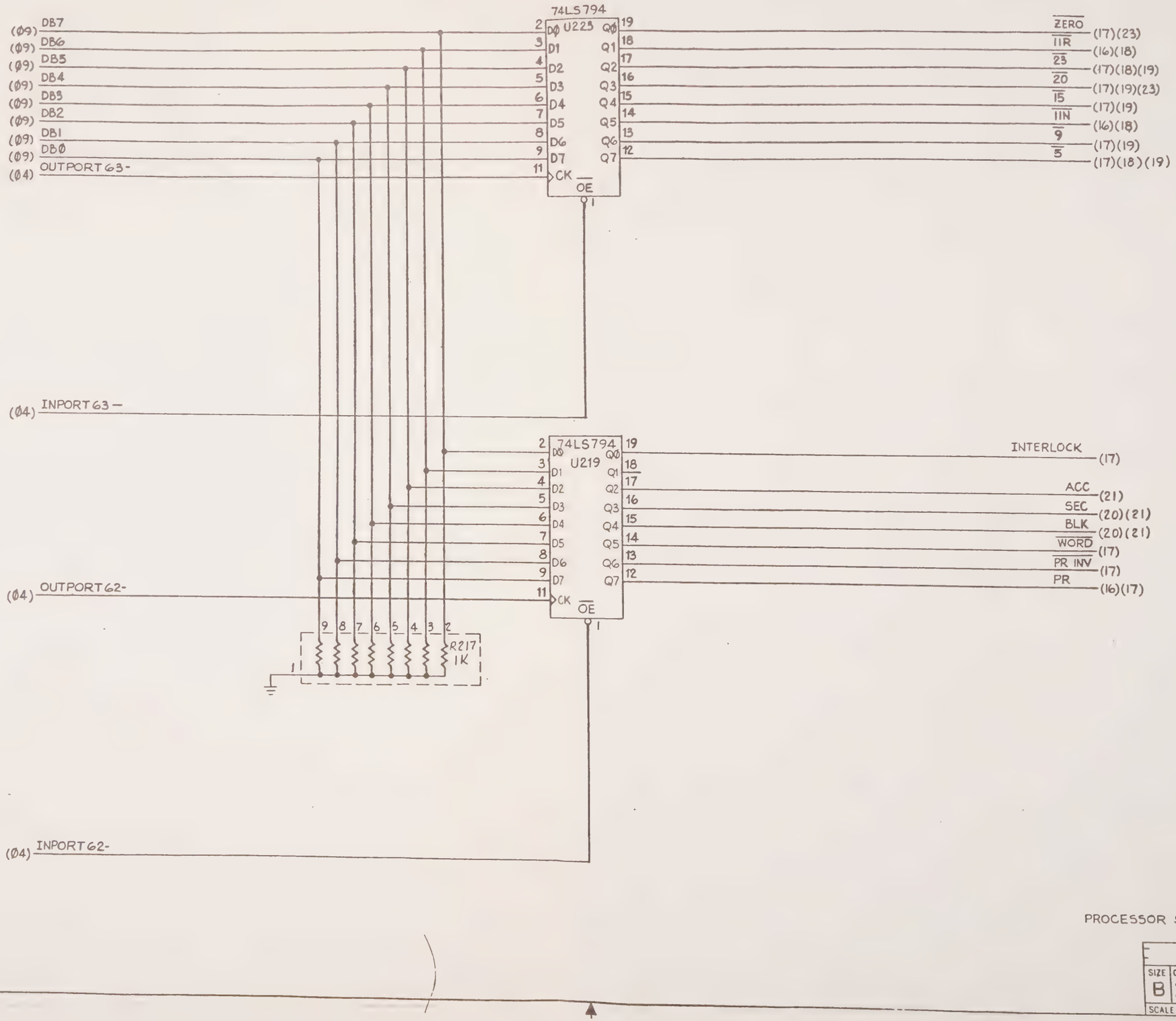
800-0684-2



PROCESSORS SETUP REGISTERS & READBACK

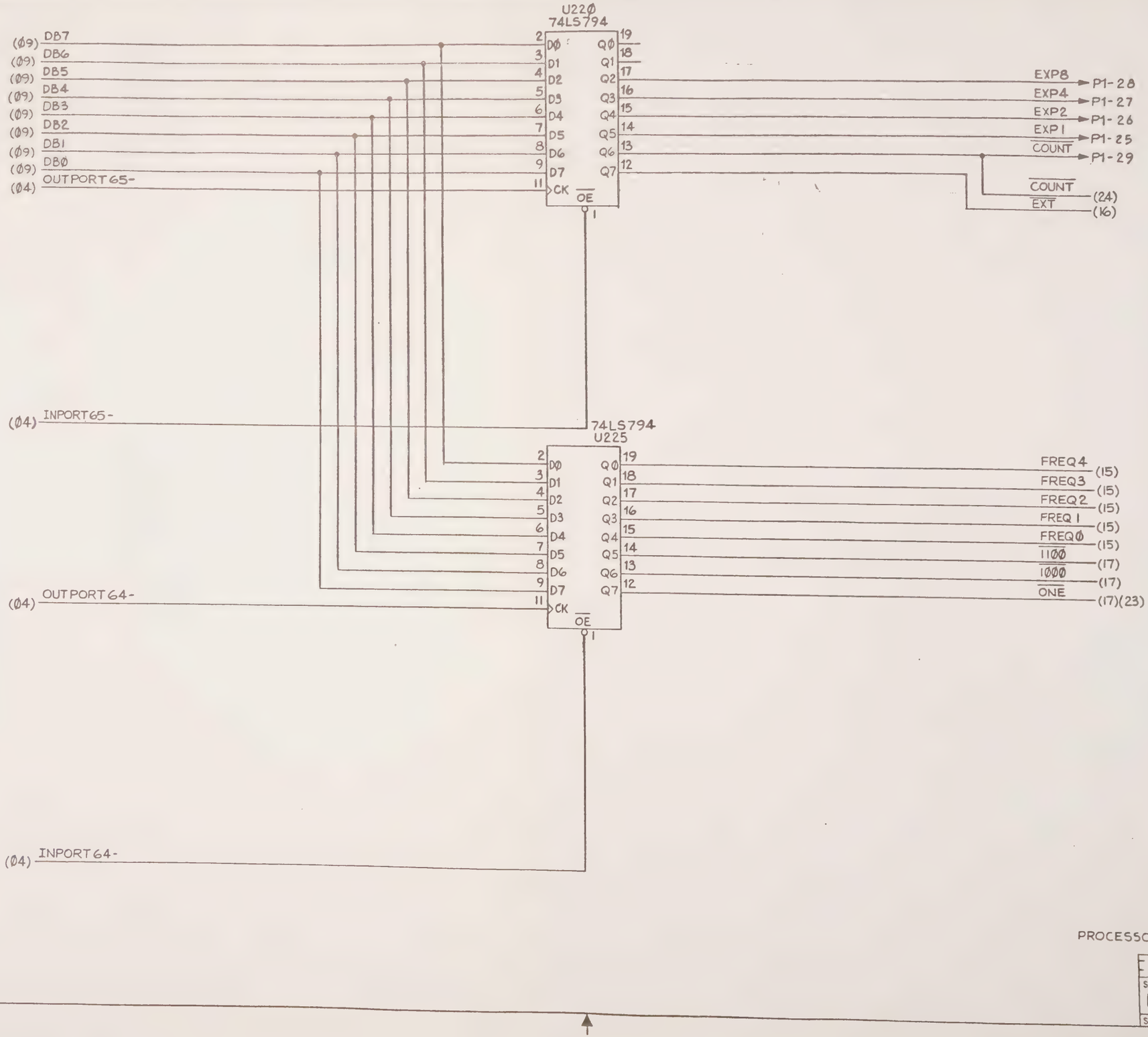
GPØ36			
SIZE B	CODE IDENT NO. 20747	SD-600-0565	REV –
SCALE NONE			SHEET 9

800-0684-2



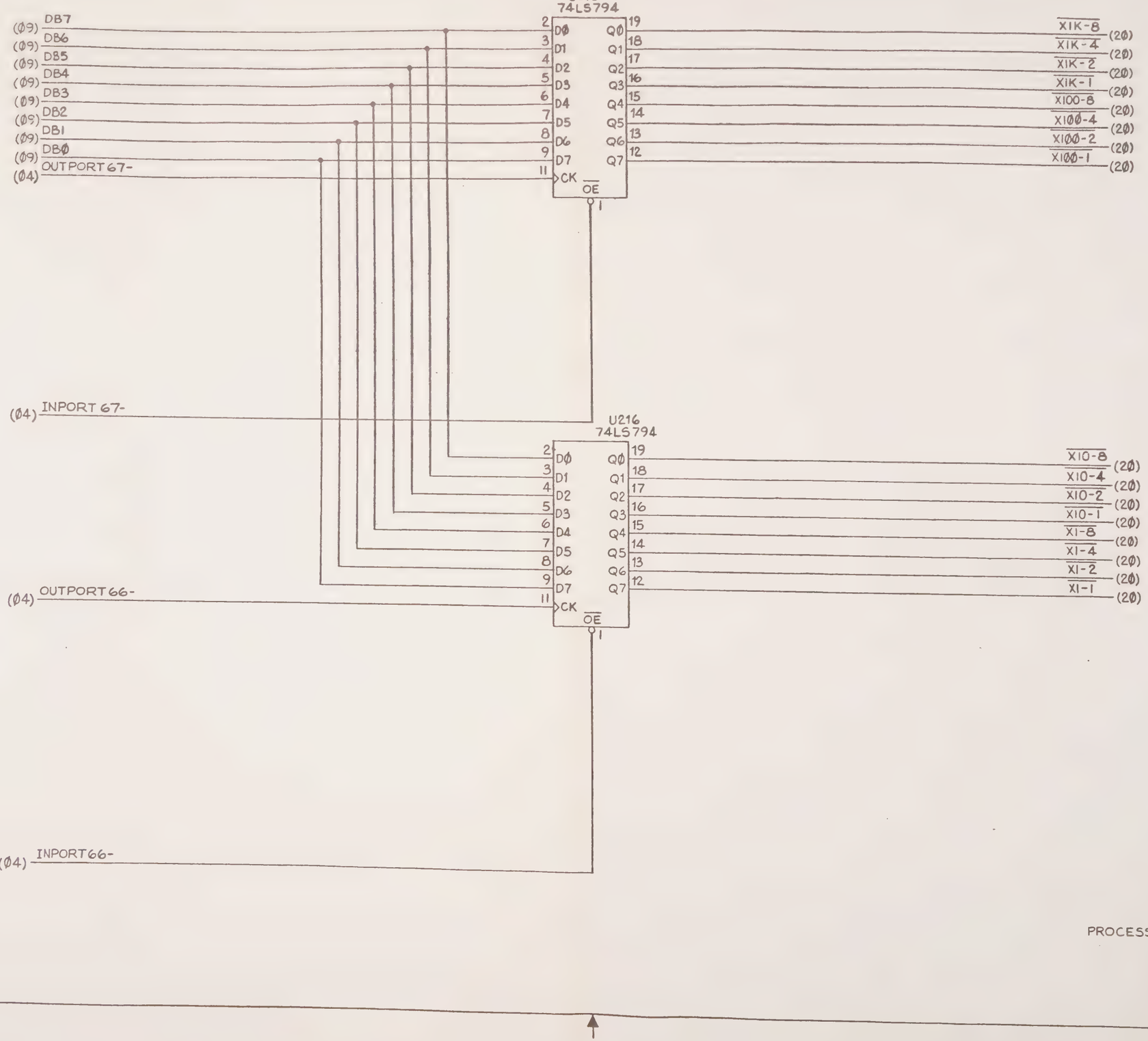
PROCESSOR SETUP REGISTERS & READBACK

GPØ36			
SIZE B	CODE IDENT NO. 20747	SD-600-0565	REV -
SCALE 1/1		SHEET 10	



PROCESSORS SETUP REGISTERS & READBACK

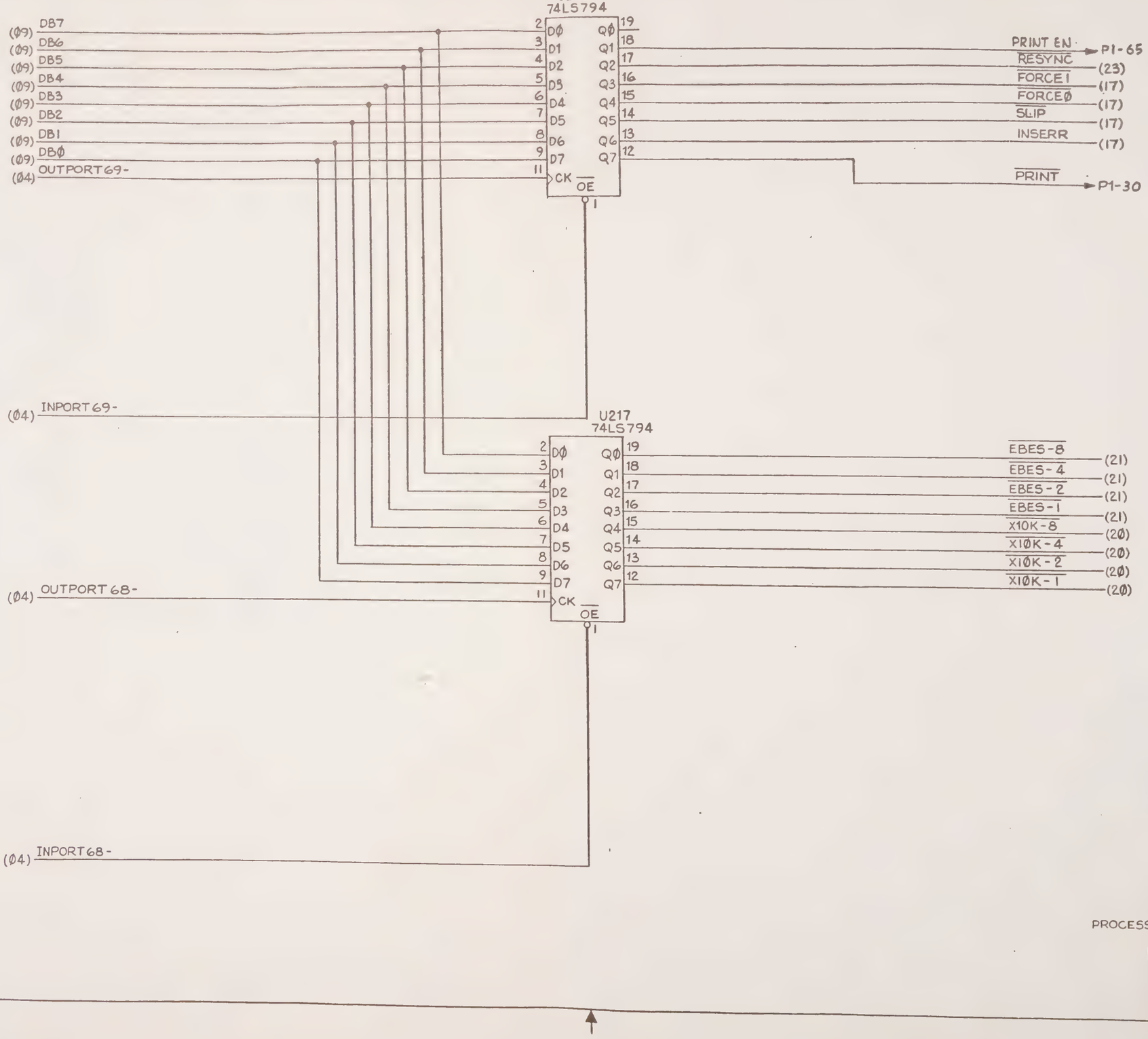
GPØ36			
SIZE B	CODE IDENT NO. 20747	SD600-0565	REV -
SCALE NU		SHEET 11	



PROCESSOR SETUP REGISTERS & READBACK

GPØ36			
SIZE B	CODE IDENT NO. 20747	SD600-0565	REV —
SCALE ~1		SHEET 12	

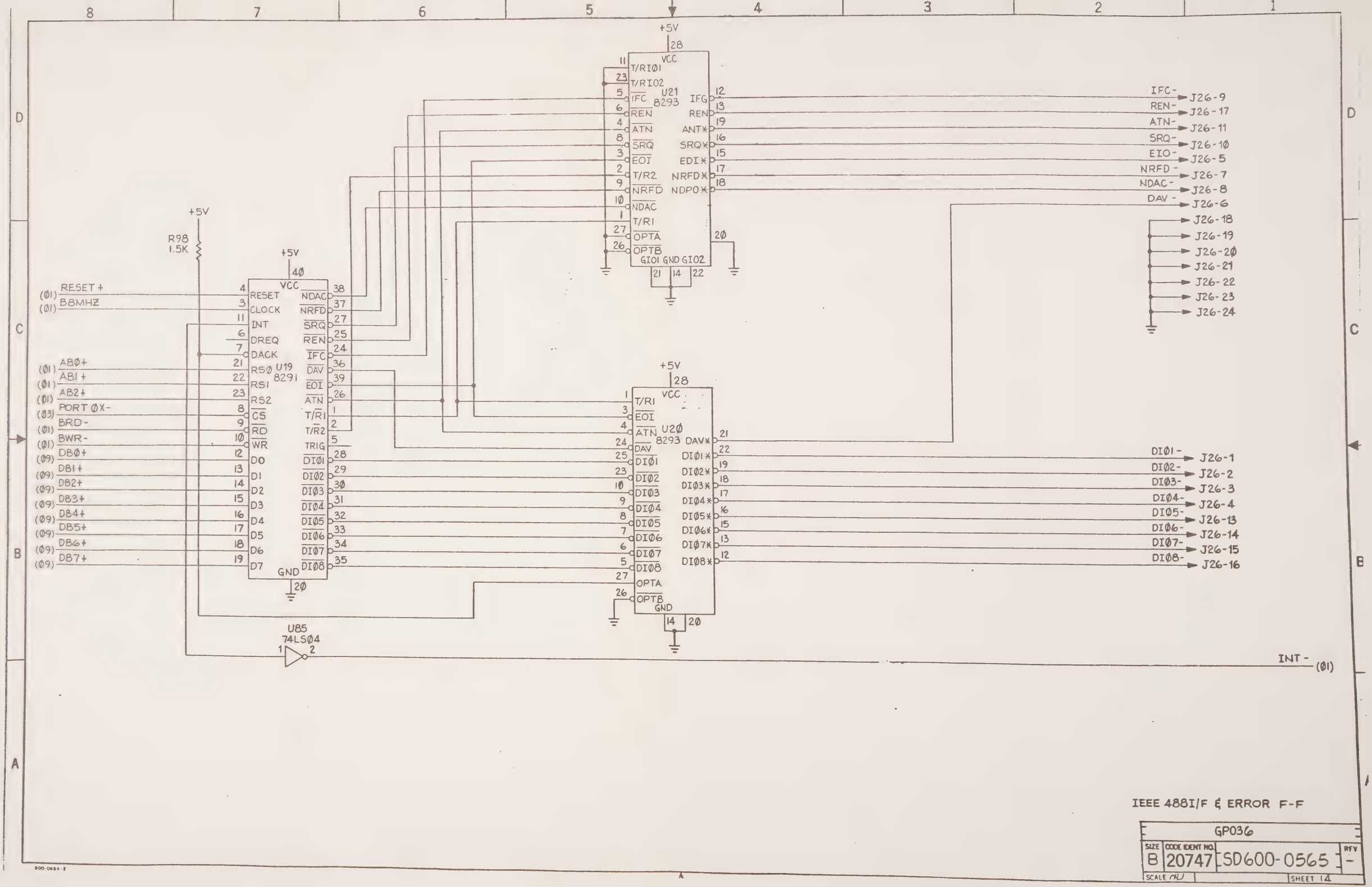
800-0684-E



PROCESSOR SETUP REGISTERS & READBACK

GPØ36			
SIZE B	CODE IDENT NO. 20747	SD6ØØ-Ø565	REV –
SCALE NO		SHEET 13	

800-0684-2



IEEE 488I/F & ERROR F-F

GP036			
SIZE B	CODE IDENT NO. 20747	SD600-0565	REV -
SCALE NU		SHEET 14	

800 0884-2

8 7 6 5 4 3 2 1

(11) FREQ4
FREQ3
FREQ2
FREQ1
(11) FREQØ

+5V R256 1.5K

U164 74LS162 ENP ENT CLR LD CLK QA QB QC QD

U110 N82S123B PROM
U111 N82S123B PROM
A0 A1 A2 A3 A4 CE B4 B5 B6 B7 BØ B1 B2 B3

Y5 OSC5 25.856 MHZ K1144A
Y6 OSC4 15.350 MHZ
Y4 OSC3 14.272 MHZ
Y3 OSC2 12.352 MHZ
Y2 OSC1 5.600 MHZ
E1

U163 74F151PC
D7 D6 D5 D4 D3 D2 D1 DØ W Y 5G

U161 74FØØPC
U135 74LS2ØN
U136 U137 U138 74F163APC
LD A B C D ENT ENP CLK QA QB QC QD RCO CLR

U109 U1Ø9 74F74PC
PR D CK Q CLR

R241 1.5K
R234 1.5K
+5V
INT CLK (16)

U187 74LSØ4N
U162 74F51N

U188A U188B 74LS393
CLR1 CLR2 1A 2A 1QA 1QB 1QC 1QD 2QA 2QB 2QC 2QD

U135 74LS2Ø

U154 74FØØ

U191 U19Ø U189 74LS39ØN
1QD 1QA 2B 2A 2QD 1A 1B CLR1 1QB 1QC CLR2 2QB 2QA 2QC

100 KHZ
1 KHZ
10 HZ

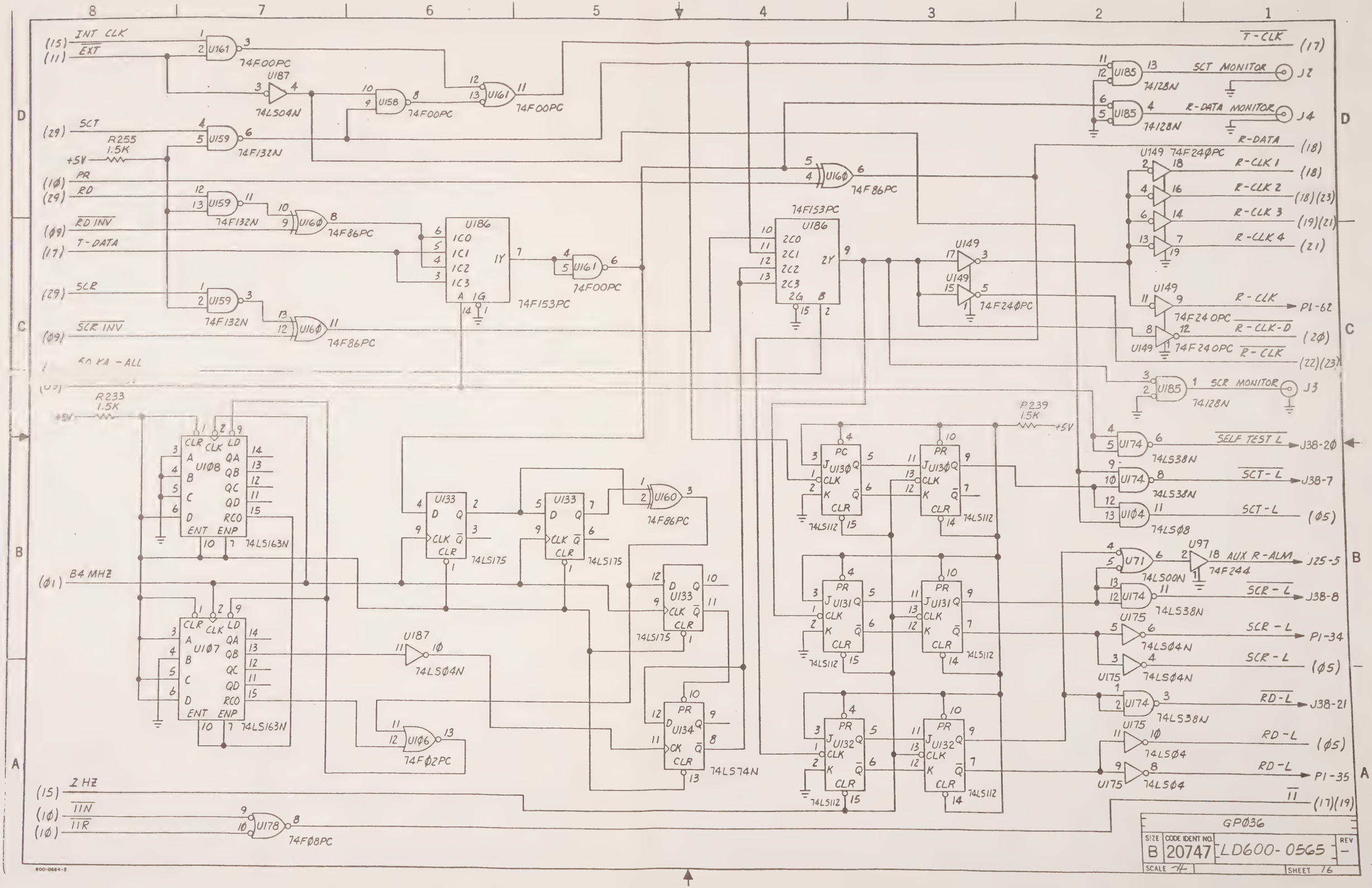
74LSØ4
U187
2Ø HZ P1-31
BLINK P1-32
2 HZ (16)
1 SEC (21)

1.4 MHZ P1-61
1.4 MHZ (23)

800-0684-2

GPØ36

SIZE	CODE IDENT NO.		REV
B	20747	SD600-0565	-
SCALE		SHEET 13	


INT CLK
EXT
SCT
R255 1.5K
+5V
PR
RD
RD INV
T-DATA
SCR
SCR INV
50 KA - ALL
R233 1.5K
B4 MHZ
2 HZ
IIN
IIR
74F00PC
74LS04N
74F132N
74F86PC
74F153PC
74F00PC
74LS163N
74LS175
74F86PC
74LS74N
74F02PC
74F08PC
T-CLK
SCT MONITOR
74128N
R-DATA MONITOR
R-DATA
74F240PC
R-CLK 1
R-CLK 2
R-CLK 3
R-CLK 4
R-CLK
R-CLK-D
SCR MONITOR
P239 1.5K
74LS112
SELF TEST L
SCT-L
SCT-L
74LS38N
74LS08
AUX R-ALM
74F244
74LS00N
SCR-L
SCR-L
SCR-L
74LS04N
74LS04
RD-L
RD-L
RD-L
74LS38N
74LS04
GP036
SIZE B
CODE IDENT NO. 20747
LD600-0565
REV -
SCALE -
SHEET 16
800-0684-2

8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

(19) 9*11*15
(19) 5*15*23
(19) 5+3
(19) 4+20+23
(19) 20*23
(18) WORD
(10) PR INV
(10) PR
(10) ZERO
(10)

WORD (18)(19)(22)(23)

R253 1.5K +5V

74F74 U87 PR D Q CLK Q CLR

74128 U173 PAT SYNC-T → J6-3, J6-28

R283 1.5K +5V

74S55N U127

74S74N SYNC PT. U101 PR D Q CK Q CLR

U102 74F20PC

74F163APC U128 RCO LD A B C D ENT ENP CLK QA QB QC QD CLR

74F163APC U155 RCO LD A B C D ENT ENP CLK QA QB QC QD CLR

74F74PC U77 PR D Q CK Q CLR

(13) FORCE 1
(13) FORCE 0

74F00PC U158 U184 74F112PC

74F86PC U182

74S55N U162

74F10PC U183

74F00PC U158

R289 1.5K +5V

(19) $\overline{4}$
(11) $\overline{ONE}$
(11) $\overline{1100}$
(11) $\overline{1000}$

74L500N U105

R287 1.5K +5V

74S00N U105

74F74PC U181 A PR D Q CK Q CLR

74F74PC U181 B PR D Q CK Q CLR

(13) INSERR.

U125 74F164PC A B Q_A Q_B Q_C Q_D Q_E Q_F Q_G Q_H CLR

U124 74F164PC A B Q_A Q_B Q_C Q_D Q_E Q_F Q_G Q_H CLR

U123 74F164PC A B Q_A Q_B Q_C Q_D Q_E Q_F Q_G Q_H CLR

R238 1.5K +5V

T-DATA (16)
BPR (19)(22)
$\overline{SD}$ (25)

U185 74128N SD MONITOR J1

U97 74F244N 16 AUXSD → J25-3

(18) CSEL
(10) INTERLOCK

R286 1.5K +5V

U182 74F86PC

74F74PC U153 PRE D Q CLK Q CLR

74F74PC U153 PRE D Q CLK Q CLR

R252 1.5K +5V

74F00PC U154 (20) (23)

OFF TO ENABLE ZERO SUPPRESION S3

74F00PC U154 (10) (5)

74F10PC U179 (16) (11)

74F10PC U179 (10) (9)

74F10PC U179 (10) (15)

R288 10K +5V

74F04PC U126 (10) (11)

74F04PC U126 (12) (13)

74F04PC U126 (8) (9)

74S00N U154 (10) (9)

74F10PC U183 (10) (9)

U126 74F04PC (5) (6)

74F112PC U177 PR J CLK K CLR Q

U97 74F244N 14 AUXSCTE → J25-11

U126 74F04PC (3) (4)

U173 74128N SCTE MONITOR J5

(20+23) PR-ZERO SUP

$\overline{SCTE}$ (19) (25)

B-SEL (18)(19)
A-SEL (18)(19)

TRANSMIT DATA GENERATOR

GP036			
SIZE B	CODE IDENT NO. 20747	SD600-0565	REV -
SCALE none		SHEET 17	

800-0564-2

RG(3⊕17⊕20) (19)
ERROR (PE) (23)
R-DATA DLY (23)
ERROR (E) (21)(22)
(19) SUP-Z
(16) R-CLK1
(16) R DATA
(16) R-CLK2
(23) PRIME 3
(10) $\overline{11R}$
(10) $\overline{5}$
(17) B SEL
(17) WORD
(10) $\overline{11N}$
(10) $\overline{23}$
(17) A SEL
(23) PRIME
(19) $\overline{4}$
(19) UNLOCK
CSEL (17)(19)
+5V
R215 1.5K
R214 1.5K
R189 1.5K
U74 74F174PC
U75 74F86CP
U76 74F86PC
U78 74F74PC
U77 A 74F74PC
U79 A 74S74N
U79 B 74S74N
U106 74F02PC
U126 74F04
U112 74F32
U71 74LS00
U175 74LS04
U39 74LS32
U32 74F04
U183 74F10PC
U35 74F151PC
U38 74F151PC
U53 74F151PC
U54 74F151PC
U36 74F164PC
U37 74F164PC
U80 74F164PC
U46 74LS195
U47 74LS195
U48 74LS195
U49 74LS195
U50 74LS195
U51 74LS195
RG-21 (19)
RG-19 (19)
RG-1 (19)
RG-15 (19)
RG-4 (19)
RG-11 (19)
RG-12 (19)
RG-13 (19)
RG-18 (19)
RG-2 (19)
RG-6 (19)
RG-7 (19)
RG-9 (19)
RG(1+6) (19)

REC REFERENCE GENERATOR

GP036
SIZE B | CODE IDENT NO. 20747 | SD600-0565 | REV -
SCALE AU | SHEET 18

800-0684-2

8 7 6 5 4 3 2 1

(18) RG-7
RG-6
RG-21
RG-9
RG-13
RG-18
(18) CSEL
(17) BSEL
(17) ASEL
(17) RG-4
(18) RG-11
RG-12
RG-2
RG-15
RG-1
(18) RG-19
(16) I1
(10) 9
15
5
23
(10) 20

U129 74F163APC
U156 74F163APC
U72 74F163APC
LD A B C D ENT ENP CLK QA QB QC QD RCO CLR

U105 74LS00
U157 74F11PC
U103 74LS10
U85 74LS04
U104 74LS08
U105 74LS00
U157 74F11PC
R254 1.5K +5V

U55 74F86PC
U56 74F174PC
1D 2D 3D 4D 5D 6D CLK CLR 1Q 2Q 3Q 4Q 5Q 6Q
U57 74F151PC
U58 74F151PC
D0 D1 D2 D3 D4 D5 D6 D7 A B C G Y

U100 74F86PC

4
20 * 23 (17)(18)(23)
4 + 20 + 23 (17)(23)
3 + 9 (17)
5 * 15 * 23 (17)(23)
9 * 11 * 15 (17)
UNLOCK (18)

(16) R-CLK-3

(17) WORD
(17) BPR
U127 74F51N

U101 74F74PC
U102 74F20PC
U73 74F175PC
U150 74S158
U192 74F04
U106 74F02PC

R232 1.5K +5V
R230 1.5K +5V
U87 74F74
U173 74128
PAT SYNC-R
J6-2
J6-27

U98 74F74PC
U99 74F51N
SUP-Z (18)

(18) RG (3⊕17⊕20)
(18) RG (1⊕6)
(10) 23
(17) (20 + 23) · PR · ZERO SUP
(22) ALLOW RESYNC

REC DATA GENERATOR
GP036
SIZE B | CODE IDENT NO. 20747 | SD 600-0565 | REV —
SCALE NU | SHEET 19

800 0584-2

8 7 6 5 4 3 2 1

(21) RESET
(21) START
(13) X10K-8
X10K-4
X10K-2
(13) X10K-1

+5V R261 1.5K

(12) X1K-8
X1K-4
X1K-2
(12) X1K-1

(12) X100-8
X100-4
X100-2
(12) X100-1

	0	1	2	3	4	5	6	7	8	9
1	/		/		/		/		/	
2			/	/			/	/		
4			/	/	/	/				
8	/	/								

9-COMP

(12) X10-8
X10-4
X10-2
(12) X10-1

(12) X1-8
X1-4
X1-2
(12) X1-1

(21) BLK/SEC ENAB
(10) BLK
(10) SEC
(16) R-CLK-D
(21) RESET-A

U171, U170, U172, U199, U198 — 74S196
U197 — 74LS30
U168 — 74F74PC
U167 — 74F00PC
U196 — 74F11PC
U112 — 74F32
U195 — 74F20

RESET & COUNT DETECT (21)

BLOCK/SECONDS COUNTER
GP036

SIZE	CODE IDENT NO.		REV
B	20747	SD600-0565	-

SCALE 4/1 SHEET 80

800 0564-2

(16) R-CLK-3

(15) 1-SEC

+5V R268 1.5K

U143 74F74PC

U143 74F74PC

U140 74F5IN

U142 74F112PC

U140 74F5IN

NMI(-) (01)

BLK/SEC ENAB (20)

U97 74F244N

12 AUX BLK/SEC → J25-6

BLK/SEC → P1-36

U141 74F02PC

(16) R-CLK-4

(2Ø) RESET + COUNT DETECT

(Ø9) RESET

(1Ø) BLK

U141 74F02PC

(Ø9) STOP

(1Ø) ACC

(1Ø) SEC

U112 74F32PC

U165 74F1ØPC

R25Ø 1.5K +5V

U142 74F112PC

U194 74F04PC

TSTCMP (Ø5)

RESET → P1-39

RESET (2Ø)(23)

R267 1.5K +5V

P1-68 INTERP

7486 U40

R26Ø 10K +5V

U139 74F5IN

U193 74F74PC

U166 74F112PC

U166 74F112PC

U141 74F02PC

SEC-END → P1-40

(22) ALLOW RESYNC

U192 74F04PC

U165 74F1ØPC

U192 74F04PC

U167 74F00PC

RESET-A (2Ø)

START (2Ø)

STOP → P1-41

(Ø9) RUN

(22) ALLOW RESYNC

U165 74F1ØPC

(13) EBES-8

EBES-4

EBES-2

(13) EBES-1

U169 74LS190

U195 74F20PC

U193 74F74PC

U194 74F04PC

U97 74F244N

AUX BLK-E/SEC-E → J25-13

U141 74F02PC

U194 74F04PC

U194 74F04PC

BLK-E/SEC-E → P1-38

ERROR → P1-42

BIT-E → P1-37

U194 74F04PC

U194 74F04PC

BIT-E → J6-1

J6-26

(18) ERROR (E)

U178 74F08PC

U167 74F00PC

U173 74128

BLK/SEC ERROR THRESHOLD

GP036

SIZE	CODE IDENT NO.		REV
B	20747	SD 600 - 0565	-

SCALE AS | SHEET 21

BIT ERROR COUNTER

(23) SYNC PULSE

(18) ERROR (E)

(16) R-CLK

(23) STOP-1

(23) STOP-2

(23) PE ≥ 32

(17) WORD

(17) BPR

U114 74F08PC

U89 74LS393N A

U89 74LS393N B

U90 74LS393N A

U90 74LS393N B

U91 74LS393N A

U91 74LS393N B

+5V R249 10K

U116 74LS112N

U115 74LS04N

U88 74LS10N

U117 74LS112N

U118 74LS51N

U119 74LS00N

U145 74F74

R251 1.5K

U147 74LS04N

U146 74LS30N

U92 74F02PC

U144 74LS112N

SYNC TEST (23)

SYNC TEST (23)

NO SYNC-L → J36-33

R297 240K

C83 2.2UF

U231 74LS123

U25 74LS37

NO SYNC-L (05)

ALLOW RESYNC (19)(21)

ALLOW RESYNC (21)(23)

NO SYNC-L → P1-33

TEST INTERVAL COUNTER

SYNC CONTROL LOGIC

GP036			
SIZE B	CODE IDENT NO. 20747	SD600-0565	REV A
SCALE NONE		SHEET 22	

800-0664-2

PREDICATOR ERROR COUNTER

(16) R-CLK
(18) ERROR (PE)
(22) SYNC TEST
(22) SYNC TEST
(18) R DATA DLY
(16) R CLK 2
(19) 4 WORD
(17) WORD
(10) ZERO
(11) ONE
(22) ALLOW RESYNC
(19) 3+9
(19) 5*15*23
(10) 20
(19) 20*23
(21) RESET
(15) 1.4 MHZ-
(13) RESYNC

74F08PC U114 C
U94 74LS393N CLR QA QB QC QD
U93 74LS393N CLR QA QB QC QD
U93 74LS393N CLR QA QB QC QD
74F74PC U122
U1ØØ 74F86PC
U147 74LS04
U94 74LS393N CLR QA QB QC QD
R237 1.5K +5V
74LS74N U12Ø
PE≥32 (22)
3 74LS1ON U88
10 74LS74N U12Ø
STOP-2 (22)
R235 1.5K +5V
74LS112N U96
74LS74N U95
74LS00N U119
U115 74LS04N
R231 1.5K +5V
74LS1ON U88
+5V R32 1ØK
STOP-1 (22)
AUX RESYNC OUT/IN J25-12

FLAT LINE DETECTOR

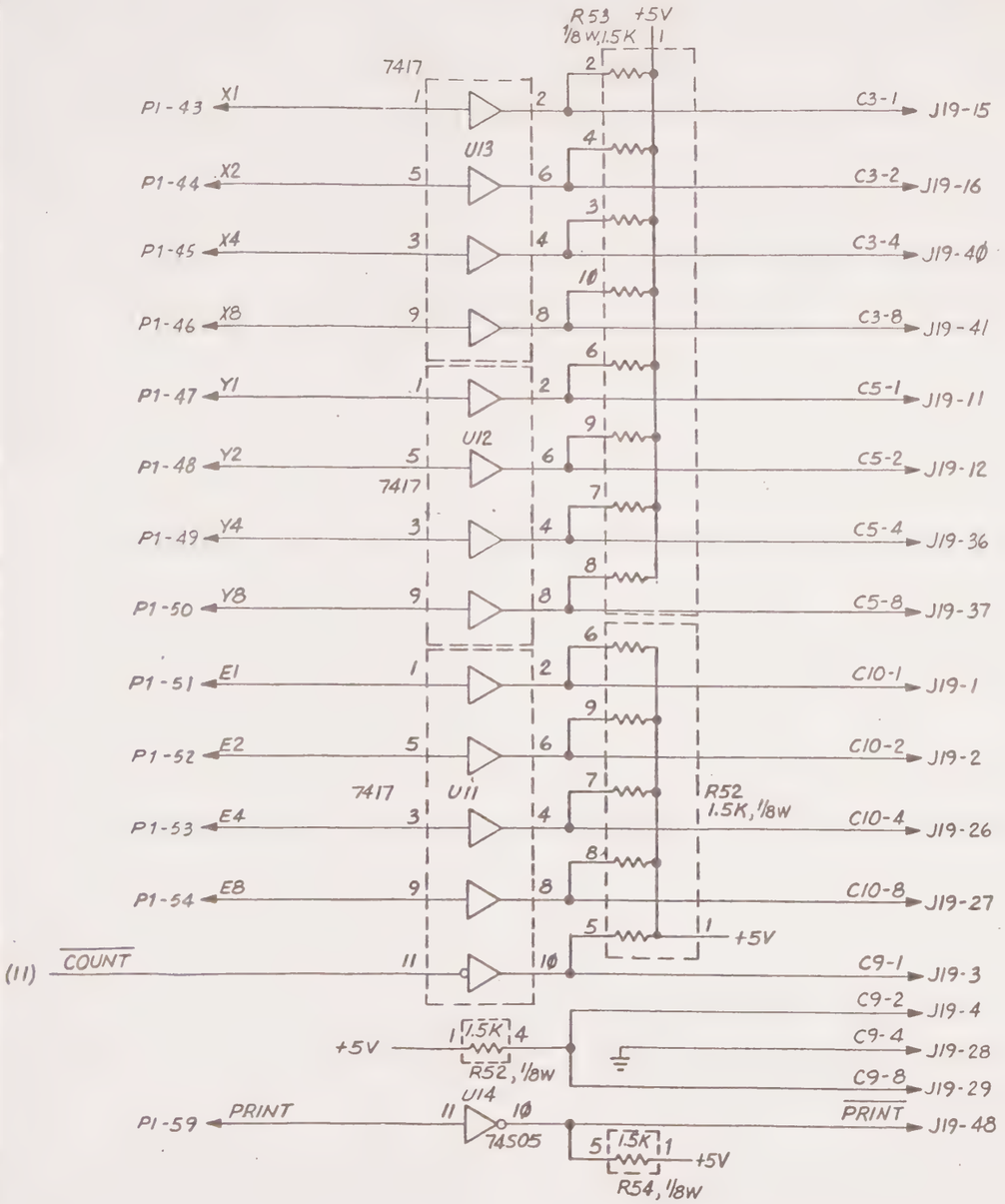
74F02PC U92
U147 74LS04
U121 74F163APC LD A B C D ENT ENP CLK QA QB QC QD RCO CLR
U148 74F163APC LD A B C D ENT ENP CLK QA QB QC QD RCO CLR
R236 1.5K +5V
74F5IN U139
R248 1.5K +5V
74F74PC U113
74F74PC U113
U14 74S05N
U92 74F02PC
74LS74 U95
PRIME (18)
PRIME (18)
SYNC PULSE (22)
U103 74LS1ON
U25 74LS37N
RESYNC-L J36-8
RESYNC-L (Ø5)
RESYNC IN
U103 74LS1ON

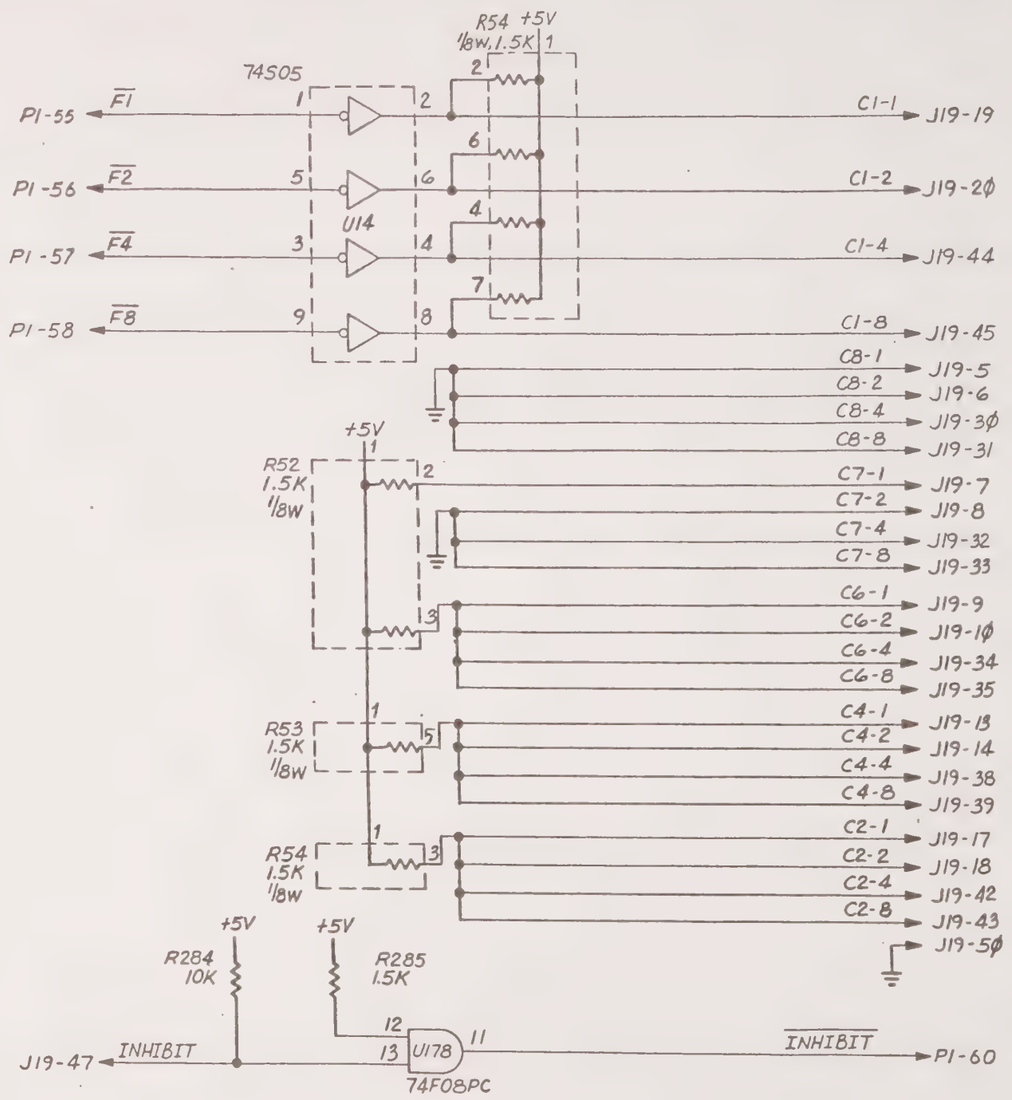
RESYNC CONTROL
GP036

SIZE	CODE IDENT NO.		REV
B	20747	SD600-0565	-

SCALE ON | SHEET 23

800-0884-2

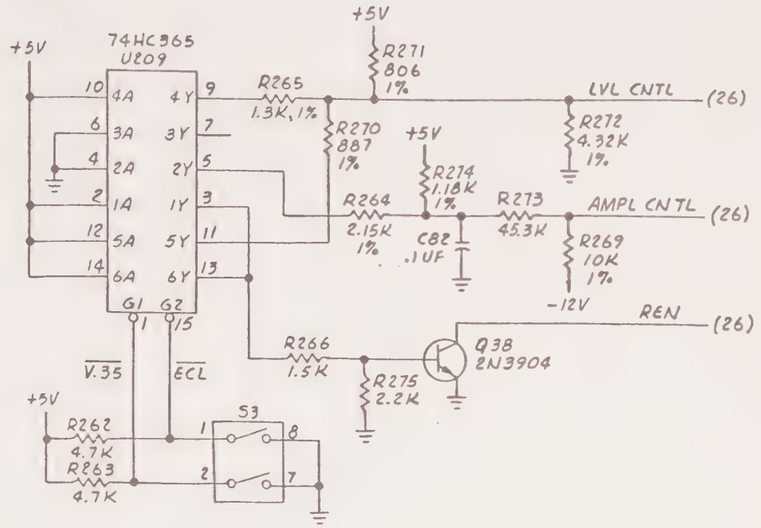


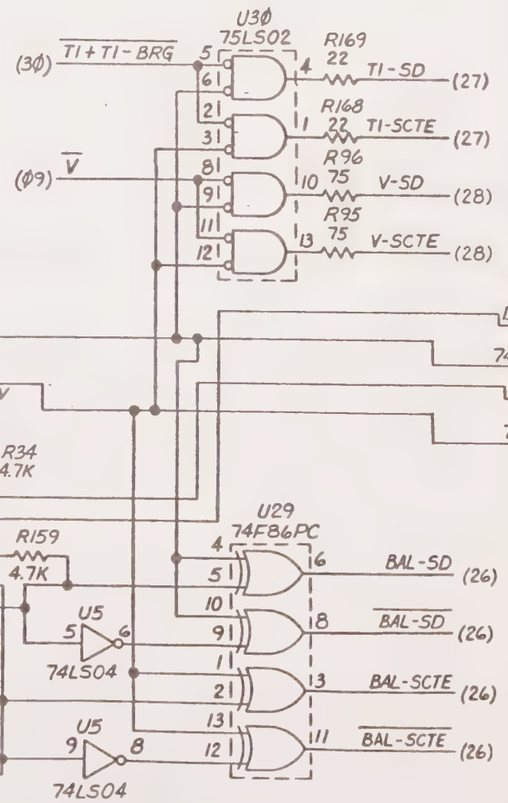


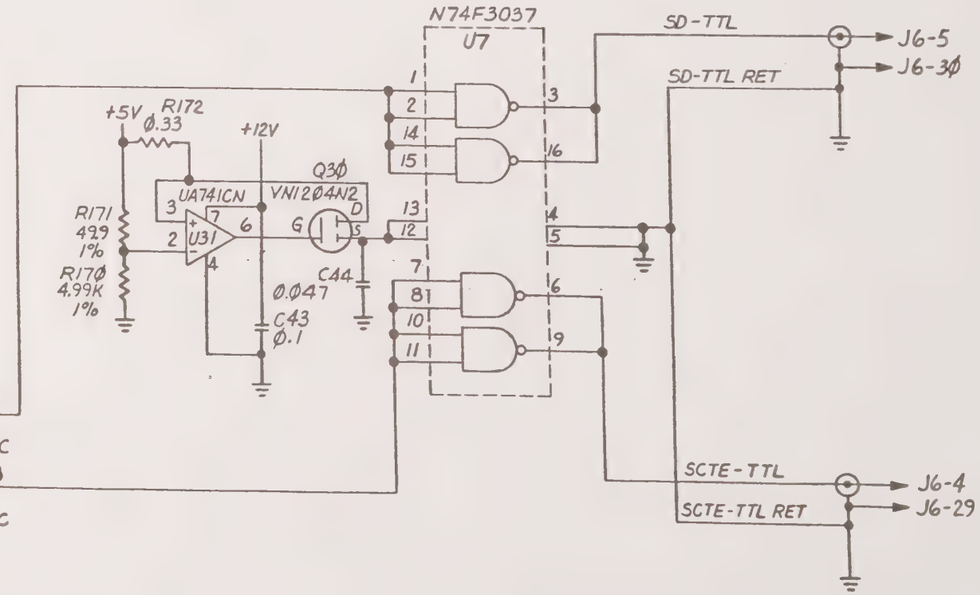
PRINTER INTERFACE

GP036			
SIZE B	CODE IDENT NO. 20747	SD600-0565	RFV –
SCALE NONE		SHEET 24	

800 0484-E





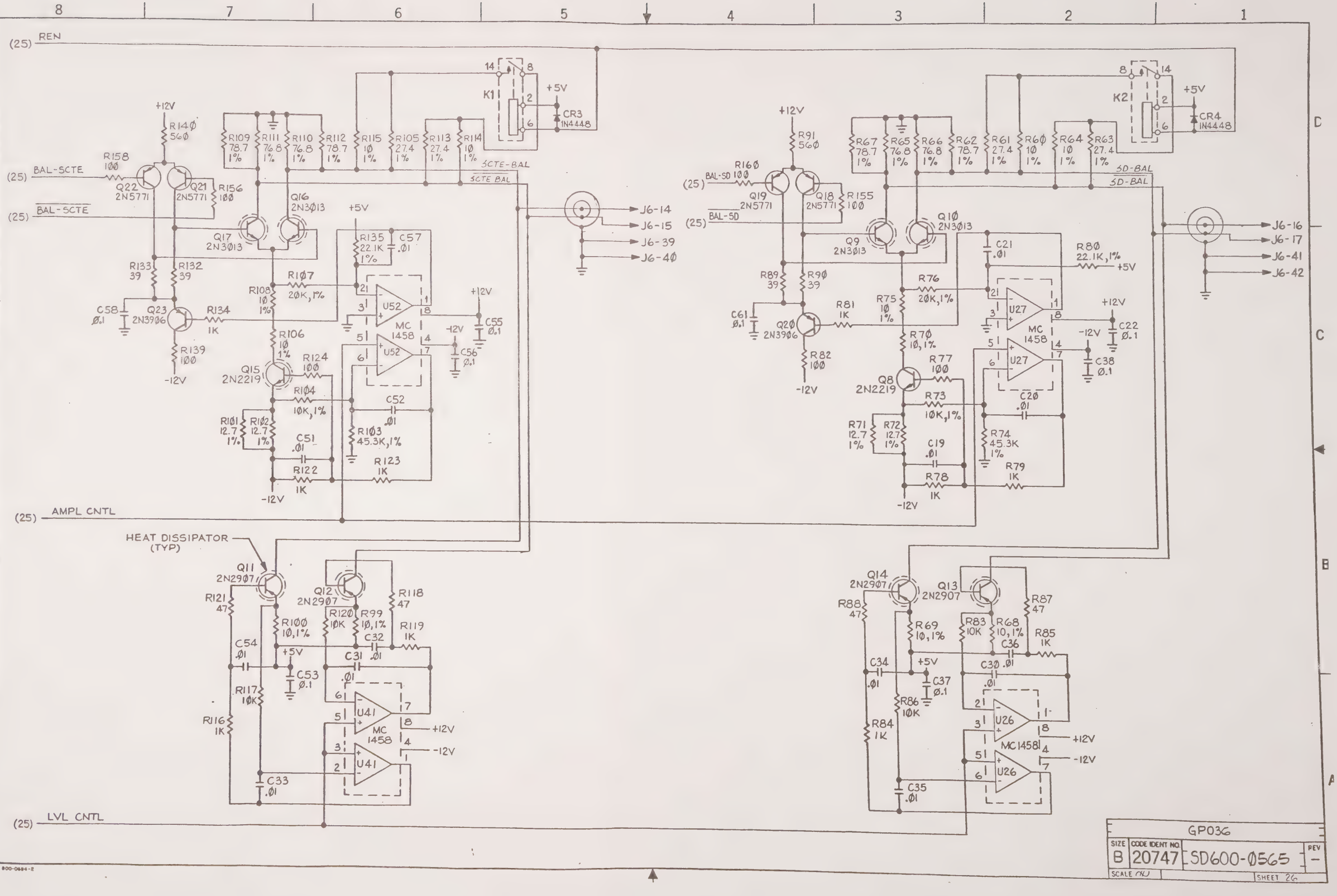


GP036

SIZE	CODE IDENT NO.		REV
B	20747	SD600-0565	-

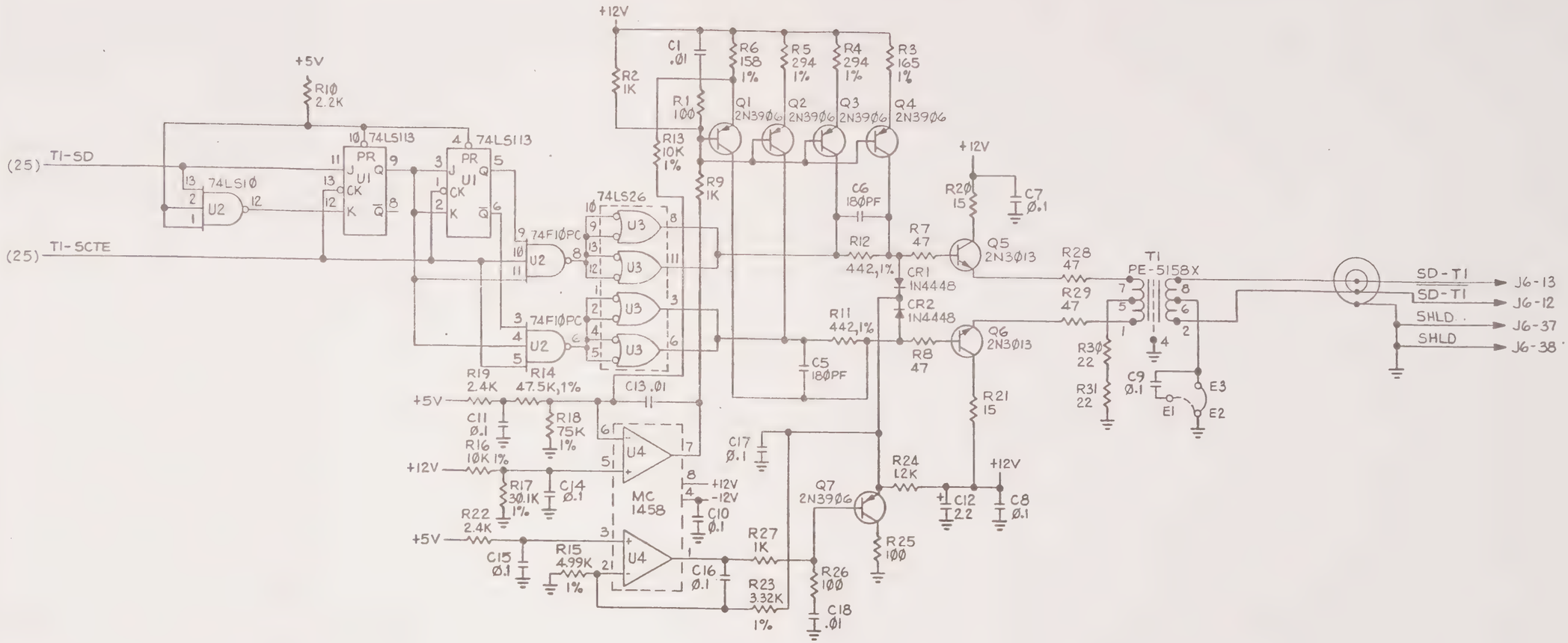
SCALE NONE — SHEET 25

800 0684-2



GP036			
SIZE B	CODE IDENT NO. 20747	SD600-0565	REV –
SCALE NONE		SHEET 26	

800-0884-2



GP036			
SIZE B	CODE IDENT NO. 20747	SD600-0565	REV –
SCALE NONE		SHEET 27	

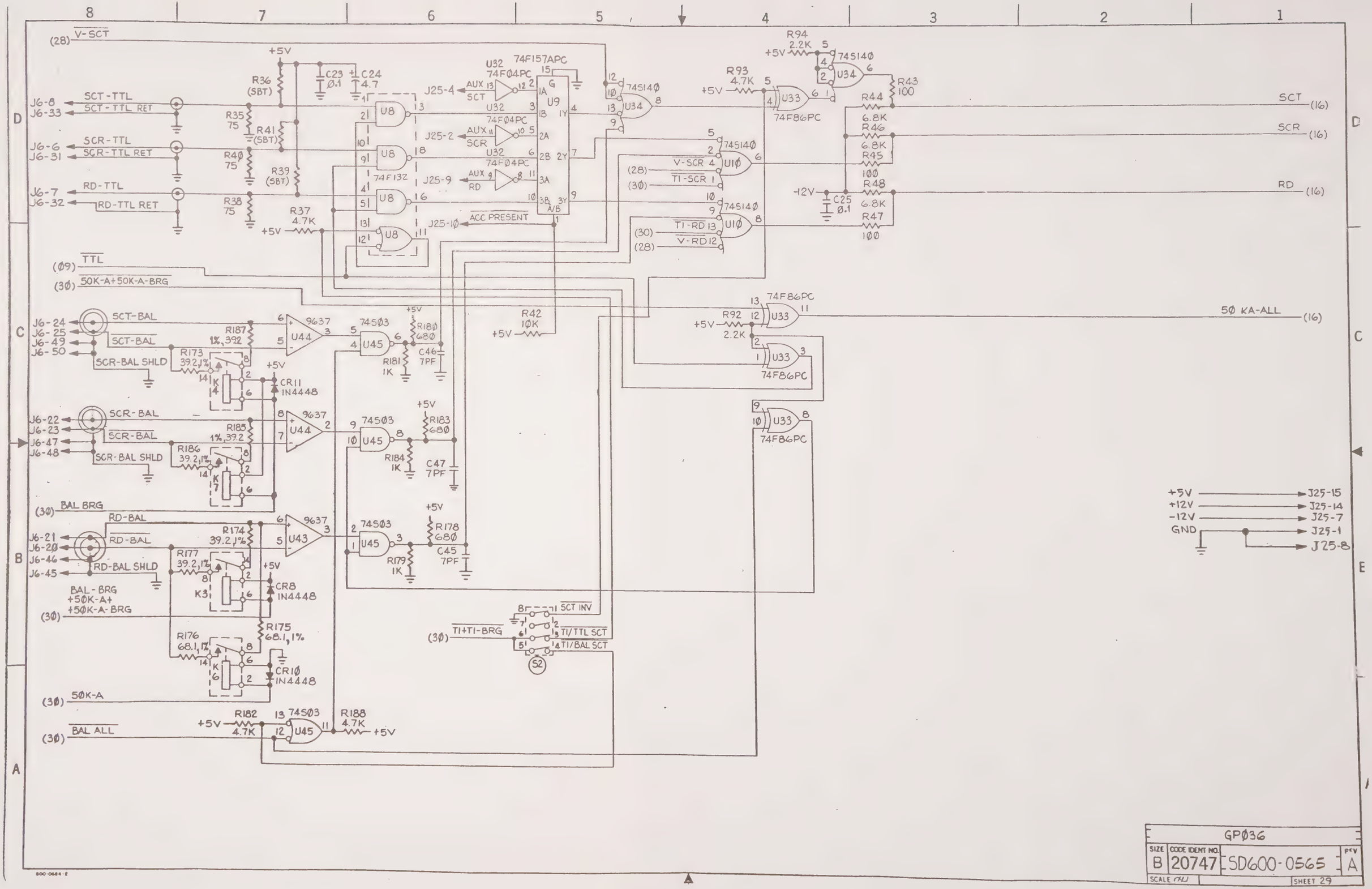
800-0884-2

J7-17 SCR-V
J7-18 SCR-V RET
J7-15 SCT-V
J7-25 SCT-V RET
J7-3 RD-V
J7-11 RD-V RET
(25) V-SD
(25) V-SCTE
(Ø9) $\overline{V}$
+5V
+12V
-12V
U17 8T16
U18 8T16
U40 7486
U39 74LS32
U15 9636
U16 7515Ø
R97 4.7K
R55 4.7K
R56 4.7K
R51 10K 1%
C27 Ø.1
C29 2.2
C26 2.2
C28 Ø.1
E5 E4
$\overline{V\text{-SCT}}$ (29)
$\overline{V\text{-SCR}}$ (29)
$\overline{V\text{-RD}}$ (29)
SD -V J7-2
SIG GND J7-7
SCTE-V J7-24
RQ SND J7-4
DTE RDY J7-2Ø

MIL PLUG OPTIONS

800-0684-2

GPØ36			
SIZE B	CODE IDENT NO. 20747	SD600-0565	REV A
SCALE (NONE)		SHEET 28	


(28) V-SCT
J6-8 SCT-TTL
J6-33 SCT-TTL RET
J6-6 SCR-TTL
J6-31 SCR-TTL RET
J6-7 RD-TTL
J6-32 RD-TTL RET
R36 (SBT)
R35 75
R41 (SBT)
R40 75
R39 (SBT)
R38 75
R37 4.7K
+5V
C23 Ø.1
C24 4.7
U8
74F132
U32 74F157APC
U32 74FØ4PC
J25-4 AUX 13 SCT
J25-2 AUX 11 SCR
J25-9 AUX 9 RD
J25-1Ø ACC PRESENT
U9
74S14Ø
U34
U33 74F86PC
R94 2.2K
R93 4.7K
R43 100
R44 6.8K
R46 6.8K
R45 100
R48 6.8K
R47 100
+12V
C25 Ø.1
SCT (16)
SCR (16)
RD (16)
V-SCR 4
TI-SCR 1
TI-RD 13
V-RD 12
(28)
(3Ø)
(3Ø)
(28)
(ØØ) TTL
(3Ø) 5ØK-A+5ØK-A-BRG
R42 1ØK
J6-24 SCT-BAL
J6-25
J6-49
J6-50 SCR-BAL SHLD
R187 1%,392
R173 39.2,1%
CR11 IN4448
U44 9637
U45 74SØ3
R181 1K
R180 68Ø
C46 7PF
J6-22 SCR-BAL
J6-23
J6-47
J6-48 SCR-BAL SHLD
R185 1%,39.2
R186 39.2,1%
R184 1K
R183 68Ø
C47 7PF
(3Ø) BAL BRG
J6-21 RD-BAL
J6-20
J6-46
J6-45 RD-BAL SHLD
R177 39.2,1%
R174 39.2,1%
CR8 IN4448
U43
R179 1K
R178 68Ø
C45 7PF
BAL-BRG +5ØK-A+ +5ØK-A-BRG
(3Ø)
R175 68.1,1%
R176 68.1,1%
CR1Ø IN4448
(3Ø) 5ØK-A
(3Ø) BAL ALL
R182 4.7K
R188 4.7K
5Ø KA-ALL (16)
R92 2.2K
(3Ø) TI+TI-BRG
SCT INV
TI/TTL SCT
TI/BAL SCT
S2
+5V → J25-15
+12V → J25-14
-12V → J25-7
GND → J25-1
J25-8
GPØ36
SIZE B
CODE IDENT NO. 20747
SD600-0565
REV A
SCALE NONE
SHEET 29
800-0684-E

8 7 6 5 4 3 2 1

D C B A

50K-A (29)

+5V Q34 2N3906 R213 2.2K R212 2.2K

J6-18 J6-19 J6-44 J6-43 RD-TI RD-TI RD-TI SHLD T2 PE-5158X R206 51.1 1% K5

R208 1.1K,1% R210 165K 1% C72 47PF R198 100K R209 51.1 1% R205 1.1K,1% R207 1.65K C71 47PF R199 100 CR9 IN4448 R204 2.2K Q33 2N3906

+12V U68 CA3046 R196 1K C62 .01 R197 100

R200 49.9K 1% R201 5.62K 1% R203 49.9K 1% -12V R202 5.62K,1%

R141 100 R195 100 R194 100 R193 100 R192 100

U67 TL514 U66 TL514

Q28 2N3906 R142 100 C60 .01 R150 100 Q29 2N3906 R164 100 R165 3K R163 100 R162 15K R161 2K C64 .01

Q26 2N3906 R144 C59 100 .01 R143 3.3K Q27 2N3906 R166 1.3K R151 100 R167 2.2K CR6 IN4448 CR7 IN4448 R149 4.7K C42 .01

Q25 2N3906 R138 6.8K R153 100 R154 75 R152 1K CR5 IN754A C63 .01 R137 6.8K R136 100

C39 .01

+12V C40 .01 R147 24.9K 1% AD741K U28 R146 100 Q24 2N3904 R145 100 R148 3.3K C41 .01

(Ø9) TI (Ø9) TI-BRG 74LSØ8 U7Ø

(Ø9) 50K-A-BRG (Ø9) 50K-A 74LSØ8 U7Ø

74FØØPC U69 R211 2.2K 50K-A+50K-A-BRG (29)

(Ø9) BAL-BRG (Ø9) BAL 74LSØ8 U7Ø BAL ALL (29)

TI+TI-BRG (25)(29)

BAL BRG (29) U42 75452B BAL-BRG +5ØK-A +5ØK-A-BRG (29)

U65 74LS32 R240 1.5K +5V

U134 PR CLR 74LS74 R49 22 TI-RD (29)

74FØØPC U69 R50 22 TI-SCR (29) U65 74LS32

+12V R227 100 C77 .01 R228 2.2K C65 .01 R229 2.2K R226 3.6K R225 100 Q35 2N3906 Q32 2N3906 C68 .01 R224 2.2K R242 100 C76 91PF R243 560 R246 1K CW R222 2.7K C78 .01 C79 2.2 R247 100 -12V

R129 470 C66 .001 R126 180K R127 33K R223 11K R125 1.5K C70 .01 R128 470 U64 TL514 C69 .01

Q31 2N3906 R221 100 C67 .01

+5V R130 1.8K Q36 2N5771 CR13 IN6263 R259 470 R258 470 R257 1K Q37 2N5245 R244 100 R245 3.9K C80 680 PF L1 15 UH

74FØØPC U69 CR12 IN6263

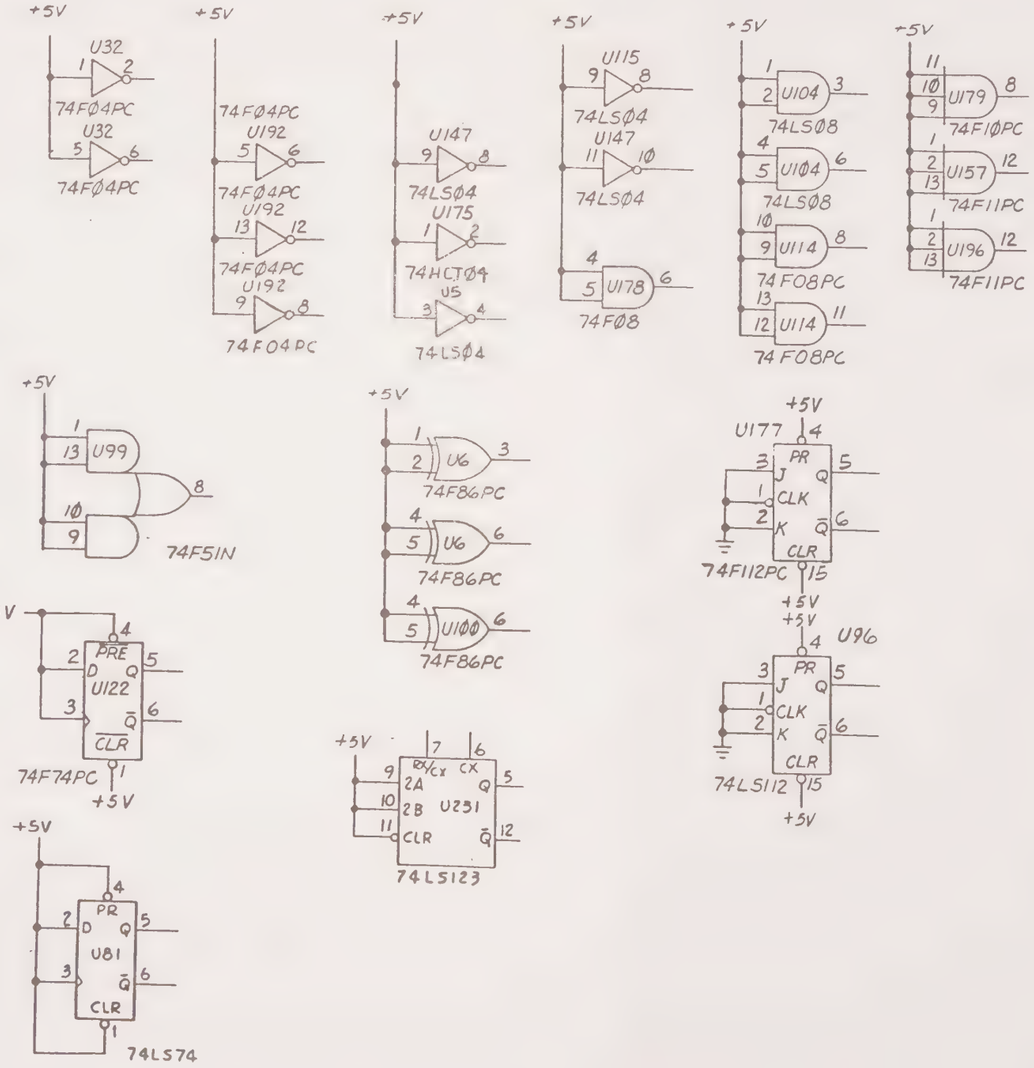
GPØ36

SIZE	CODE IDENT NO.		REV
B	20747	SD600-0565	A

SCALE (NA) SHEET 30

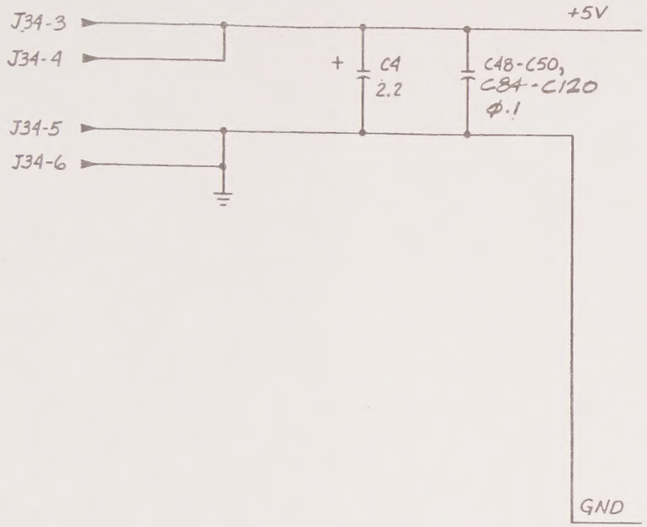
800-0564-2

SPARES



GPØ36			
SIZE B	CODE IDENT NO. 20747	SD600-0565	REV -
SCALE NU		SHEET 31	

800-0884 2



TO PIN 14 OF U1, U2, U3, U5, U6, U8, U10, U11, U12, U13, U14, U17, U18, U25, U29, U30, U32, U33, U34, U36, U37, U39, U40, U45, U55, U65, U69, U70, U71, U75, U76, U77, U78, U79, U80, U81, U82, U83, U85, U87, U88, U89, U90, U91, U92, U93, U94, U95, U98 U99, U100, U101, U102, U103, U104, U105, U106, U109, U112, U113, U114, U115, U118, U119, U120, U122, U123, U124, U125, U126, U127. U134, U135, U139, U140, U141, U143, U145, U146, U147, U153, U154, U157, U158, U159, U160, U161, U162, U165, U167, U168, U170, U171, U172 U173, U174, U175, U178, U179, U181, U182, U183, U185, U187, U188, U192, U193, U194, U195, U196, U197, U198, U199

TO PIN 16 OF U9, U35, U38, U46, U47, U48, U49, U50, U51, U53, U54, U56, U57, U58, U72, U73, U74, U84, U96, U107, U108, U110, U111, U116, U117, U121, U128, U129, U130, U131, U132, U133, U136, U137, U138, U142, U144, U148, U150, U151, U152, U155, U156, U163, U164, U169, U176, U177, U180, U184, U186, U189, U190, U191, U200, U201, U202, U203, U204, U205, U206, U207, U208, U166, U209, U231

TO PIN 40 OF U19

TO PIN 28 OF U20, U21, U60, U61

TO PIN 20 OF U22, U23, U24, U59, U63, U97, U149, U210, U211, U212, U213, U214, U215, U216, U217, U218, U219, U220, U221, U222, U223, U224, U225, U226, U227, U228, U229, U230

TO PIN 8 OF U42, U86,

TO PIN 11 OF U62
TO PIN 1 OF U43, U44

TO PIN 7 OF U1, U2, U3, U5, U6, U8, U10, U11, U12, U13, U14, U17, U18, U25, U29, U30, U32, U33, U34, U36, U37, U39, U40, U45, U55, U65, U69, U70, U71, U75, U76, U77, U78, U79, U80, U81, U82, U83, U85, U87, U88, U89, U90, U91, U92 U93, U94, U95, U98 U99, U100, U101, U102, U103, U104, U105, U106, U109, U112, U113, U114, U115, U118, U119, U120, U122, U123, U124, U125, U126, U127, U134, U135, U139, U140, U141, U143, U145, U146, U147, U153, U154, U157, U158, U159, U160, U161, U162, U165, U167, U168, U170, U171, U172, U173, U174, U175, U178, U179, U181, U182, U183, U185, U187, U188, U192, U193, U194, U195, U196, U197, U198, U199

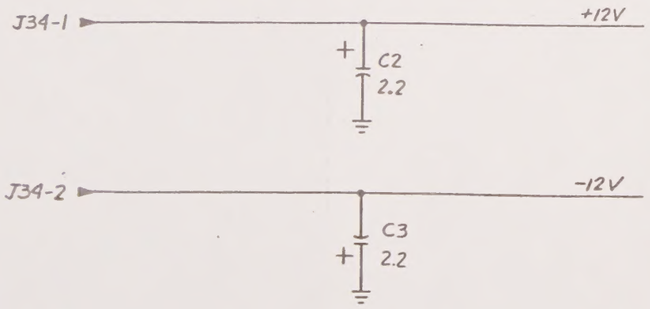
TO PIN 4 OF U7, U15, U16, U31, U42, U43, U44, U86
TO PIN 5 OF U7
TO PIN 8 OF U9, U35, U38, U46, U47, U48, U49, U50, U51, U53, U54, U56, U57, U58, U72, U73, U74, U84, U96, U107, U108, U110, U111, U116, U117, U121, U128, U129, U130, U131, U132, U133, U136, U137, U138, U142, U144, U148, U150, U151, U152, U155, U156, U163, U164, U169, U176, U177, U180, U184, U186, U189, U190, U191, U200, U201, U202, U203, U204, U205, U206, U207, U208, U166, U209, U231

TO PIN 20 OF U19

TO PIN 14 OF U20, U21, U60, U61

TO PIN 10 OF U22, U23, U24, U59, U63, U97, U149, U210, U211, U212, U213, U214, U215, U216, U217, U218 U219, U220, U221, U222, U223, U224, U225, U226, U227, U228, U229, U230

TO PIN 29 OF U62
TO PIN 11 OF U64, U66, U67



TO PIN 8 OF U4, U15, U16, U26, U27, U41, U52

TO PIN 7 OF U28, U31

TO PIN 3 OF U64, U66, U67

TO PIN 10 OF U64, U66, U67

TO PIN 5 OF U15, U16

TO PIN 4 OF U4, U26, U27, U28, U41, U52

NOTES:

1. UNLESS OTHERWISE SPECIFIED
   ALL RESISTOR VALUES ARE IN OHMS, ¼w, 5%.
   ALL 1% RESISTORS ARE ⅛w.
   ALL CAPACITOR VALUES ARE IN MICROFARADS.
2. ITEMS 285, 289, AND 294 OF PARTS LIST DENOTE DIP SOCKETS CONTAINING A 0.1uF BYPASS CAPACITOR BETWEEN +5V AND GND.

POWER INPUT

FOR PARTS LIST SEE PL 460-2199 - ☐

GP036			
SIZE B	CODE IDENT NO. 20747	SDG00-0565	REV -
SCALE ¼		SHEET 32	

800-0684-2